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,

Officers' Directory.

U. S. NAVAL ACADEMY,

ANNAPOLIS, MD., OCTOBER 1, 1878.

Commodore FOXHALL A. PARKER, Superintendent.

<i>Commander</i>	F. V. McNair.....	No. 1,	Officers' Quarters.
"	Jno. A. Howell.....	" 6,	" "
"	A. T. Mahan.....	" 9,	" "
"	S. D. Greene.....	" 3,	" "
"	W. T. Sampson.....	" 11,	" "
"	M. Miller.....	U. S. Ship	"Santec."
"	E. M. Shepard.....	No. 4,	Officers' Quarters.
<i>Lieut. Comdr</i>	A. D. Brown.....	No. 27,	Officers' Quarters.
"	C. V. Gridley.....	" 25,	" "
"	W. M. Folger.....	" 20,	" "
"	F. W. Dickins.....	" 17,	" "
"	C. J. Train.....	" 18,	" "
<i>Lieutenant</i>	S. Hubbard.....	No. 12,	2nd Floor, Officers' Quarters.
"	W. H. Brownson.....	U. S. Ship	"Constellation."
"	M. R. S. Mackenzie.....	No. 86,	Prince George's St.,
"	J. C. Soley.....	No. 15,	2nd Floor, Officers' Quarters.
"	S. W. Very.....	No. 9,	2nd Floor, Old Quarters, Cadets'.
"	W. H. Parker.....	No. 12,	1st Floor, Officers' Quarters.
"	W. H. Emory.....	No. 12,	4th Floor, Officers' Quarters.
"	H. Knox.....	" 13,	1st " " "
"	J. W. Miller.....	" 99,	King George's St.
"	J. M. Miller.....	" 14,	3rd " " "
"	F. M. Wise.....	No. 14,	1st Floor, Officers' Quarters.
"	J. V. B. Bleecker.....	" 104,	King George's St.
"	L. C. Logan.....	" 14,	2nd " " "
"	H. Perkins.....	" 9,	1st Floor Old Quarters. Cadets.
"	R. R. Ingersoll.....	" 15,	3rd " " "
"	D. Kennedy.....	No. 15,	4th Floor, Officers' Quarters.
"	R. C. Derby.....	" 14,	4th " " "
"	R. T. Jasper.....	" 12,	3rd " " "
"	W. J. Barnett.....	Maryland Hotel.	
"	G. W. Tyler.....	No. 27,	Officers' Quarters.
"	A. B. Speyers.....	No. 8,	2nd Floor, Old Quarters, Cadets.
"	C. G. Bowman.....	No. 9,	2d Floor, Old Quarters, Cadets.
"	S. C. Paine.....	" 3,	King George's St. ?
"	A. P. Nazro.....	No. 92,	Prince George's
<i>Master</i>	H. O. Rittenhouse.....	" 98,	King George's St.
"	G. S. Dyer.....	No. 77,	Prince George's St.,
"	C. Lyman.....	Maryland Hotel.	
"	S. A. Staunton.....	No. 9,	3d Floor, Old Quarters, Cadets.

Master A. Ward,.....Maryland Avenue and Hanover St., Annapolis.
 " W. P. Clason,.....No. 88, Prince George's " "
 " C. R. Miles,....." 29 $\frac{1}{2}$, Hanover St.
Ensign A. A. Michelson,.....No. 27, Corn Hill St.
 " A. C. Hodgson,....." 7. 3d Floor, Old Quarters Cadets.
Medical Inspector A. L. Gihon,.....No. 5. Officers' Quarters.
P. A. Surgeon W. A. Corwin,.....No. 15. 1st Floor, Officers' Quarters.
 " " G. E. H. Harmon,.....No. 7, 3rd Floor, Old Quarters, Cadets'.
Acting Asst. Surgeon T. O. Walton,.....No. 11, Maryland Avenue, Annapolis.
Paymaster A. S. Kenny, (Commissary),.....No. 2, Officers' Quarters.
 " F. H. Swan, (Storekeeper),....." 21, " "
 " W. N. Watmough, Treasurer,....." 22, " "
Chief Engineer J. P. Sprague,....." 7, " "
P. A. Engineer L. W. Robinson,.....No. 13, 3rd Floor, Officers' Quarters.
 " " C. H. Greenleaf,.....No. 8. 3rd Floor, Old Quarters, Cadets'.
 " " W. L. Nicoll,....." 8, 2nd " " "
 " " D. Jones,.....No. 13. 4th Floor, Officers' Quarters.
 " " C. H. Manning,....." 13. 2nd " " "
 " " G. H. Kearny,....." 42, Duke of Gloucester St.
Assistant Eng. A. V. Zane,.....No. 9. 1st Floor, Old Quarters, Cadets.
Chaplain R. Hudson,....." 16, " "
Professor W. W. Hendrickson,....." 10, " "
 " J. M. Rice,....." 19, " "
 " J. R. Soley,....." 23, " "
 " L. F. Prud'homme,....." 26, " "
 " M. Oliver,....." 8, " "
 " N. M. Terry,.....No. 1. Duke of Gloucester St.
 " C. E. Munroe,....." 7. 3rd Floor, Old Quarters, Cadets.
 " P. Montaldo,....." 9, 1st " " "
Ass't Professor, Thos. Karney,.....Maryland Avenue, Annapolis.
 " " W. W. Fay,.....No. 102, Prince George's St., "
 " " A. V. S. Courvelle,.....Lawyer " "
 " " E. Dovilliers,.....No. 19, Corn Hill " "
 " " J. Leroux,.....Maryland Hotel, Annapolis.
 " " H. Dalmon,.....No. 8. 3rd Floor, Old Quarters, Cadets'.
 " " C. F. Blauvelt,....." 9. 3d " " "
R. M. Chase, Secretary,.....No. 28, Officers' Quarters.
J. J. Graff, Ass't Librarian,.....No. 8. West St., Annapolis.
J. G. Glynn, 1st Clerk,.....No. 9. Duke of Gloucester " "
Samuel Jickling, 2nd Clerk,.....Conduit St., extended, "
C. M. McLeod, Clerk to Comd't of Cadets,.....No. 11, Cathedral St., "
W. H. Eldridge, Clerk to Comd't of Cadets,.....No. 13, Maryland Avenue.
C. E. Hawkins, Boatswain,.....U. S. Ship "Santee."
Robert Sommers, Gunner,.....U. S. Ship "Dale."
A. J. Corbesier, Sword Master,.....No. 27, Maryland Avenue, Annapolis.
J. B. Retz, Ass't Sword Master,.....Conduit St., extended, "
Geo. Heintz, Ass't Sword Master,.....No. 7, Market St., "
Matthew Strohm, Boxing Master,.....No. 23, Green " "

MARINE GARRISON.

Captain George P. Houston,.....Maryland Hotel, Annapolis.
1st Lieutenant, James M. T. Young,.....Maryland Hotel, "
 " " Sam'l H. Gibson,.....No. 84, Prince George's St.,
 2d " " Sam'l J. Logau,....." 29, Hanover St.

Meine

Freundliche Grüsse

ANNUAL REGISTER

OF THE

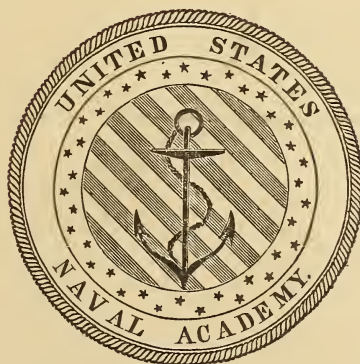
H. Knorr
Lieut. 1st Class

UNITED STATES NAVAL ACADEMY,

ANNAPOLIS, MD.

TWENTY-EIGHTH ACADEMIC YEAR,

1877-78.



WASHINGTON:
GOVERNMENT PRINTING OFFICE,
1877.



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THE UNITED STATES NAVAL ACADEMY.

The United States Naval Academy was founded in 1845, by Hon. George Bancroft, Secretary of the Navy, in the administration of President James K. Polk. It was formally opened October 10, of that year, under the name of the Naval School, with Commander Franklin Buchanan as Superintendent. It was placed at Annapolis, Md., on the land occupied by Fort Severn, which was given up by the War Department for the purpose. The course was fixed at five years, of which the first and last only were spent at the School, the intervening three being passed at sea. This arrangement was not strictly adhered to, the exigencies of the service making it necessary, in many cases, to shorten the period of study. In January, 1846, four months after the opening of the School, the students consisted of 36 Midshipmen, of the date of 1840, who were preparing for the examination for promotion; 13 of the date of 1841, who were to remain until drafted for service at sea; and 7 Acting Midshipmen, appointed since September of the previous year. The Midshipmen of the date of 1840 were the first to graduate, finishing their limited course in July, 1846, and they were followed in order by the subsequent dates, until the reorganization of the School, in 1851.

In September, 1849, a Board was appointed to revise the plan and regulations of the Naval School. The Board was composed of the following officers:

Commodore William B. Shubrick,
Commander Franklin Buchanan,
Commander Samuel F. DuPont,
Commander George P. Upshur,
Surgeon W. S. W. Ruschenberger,
Professor William Chauvenet,
Captain Henry Brewerton, U. S. A.

The plan reported by the Board was approved, and went into operation July 1, 1850.

The new organization provided for a course of seven years, the first two and last two at the School and the three intermediate years at sea. The School was placed under the supervision of the Bureau of Ordnance and Hydrography, and its name was changed to the United States Naval Academy. The corps of professors was enlarged, the course was extended, and the system of separate departments, with executive heads, was fully adopted. It was provided that a Board of Visitors should make an annual inspection of the Academy, and report upon its condition to the Secretary of the Navy. A suitable vessel was attached to the Academy as a practice-ship, and the annual practice-cruises were begun.

After the system had been in operation a year new changes were proposed, and the recommendations of the Academic Board on the subject were referred to the Board of Examiners of the year 1851, composed of the following officers:

Commodore David Conner,
Captain Samuel L. Breese,
Commander C. K. Stribling,
Commander A. Bigelow,
Commander Franklin Buchanan,
Lieutenant Thomas T. Craven.

The change recommended by the Board of Examiners, and adopted by the Department, consisted mainly in leaving out the requirement of three years of sea-service in

the middle of the course, thus making the four years of study consecutive. The practice-cruises supplied the place of the omitted sea-service, and gave better opportunities of training. The change went into operation in November, 1851, together with other improvements recommended by the Board. The system has continued, with slight modifications, to the present time. The first class to receive the benefit of it was that which entered in 1851. Six members of this class completed the course in three years, and graduated in June, 1854; the rest of the class followed in 1855.

In May, 1861, on the outbreak of the war, the Academy was removed to Newport, R. I. The three upper classes were detached and ordered to sea, and the remaining Acting Midshipmen were quartered in the Atlantic House and on board the Frigates Constitution and Santee. In September, 1865, the Academy was moved back to Annapolis, where it has since remained.

When the Bureau of Navigation was established, July 5, 1862, the Academy was placed under its supervision; March 1, 1867, it was placed under the direct care and supervision of the Navy Department; the administrative routine and financial management being still conducted through the Bureau. On the 11th of March, 1869, all official connection with the Bureau came to an end.

The term of the academic course was changed by law, March 3, 1873, from four to six years. The change took effect with the class which entered in the following summer.

In 1866, a class of Acting Third Assistant Engineers was ordered to the Academy for instruction. The course embraced the subjects of steam-engineering, iron-manufacture, chemistry, and mechanics, and practical exercises with the steam-engine and in the machine-shop. This class graduated in June, 1868, together with two Cadet-Engineers who had entered the Academy in 1867. After an interval of four years, in October, 1871, a new class of Cadet-Engineers was admitted. This class followed a two years' course, somewhat more extended than that of the class of 1868, and graduated in 1873. In 1872 and 1873, new classes were admitted, the first of which left the Academy in 1874 and the second in 1875. By an act of Congress approved February 24, 1874, the course of instruction for Cadet-Engineers was made four years, instead of two; and the new provision was first applied to the class entering the Academy in the year 1874.

BOARD OF VISITORS, JUNE, 1877.

- Commodore J. W. A. NICHOLSON, U. S. N., *President*.
 Brigadier General W. H. EMORY, U. S. A., *Vice-President*.
 General R. P. BUCKLAND, of Ohio.
 Rt. Rev. W. I. KIP, D. D., LL. D., Bishop of California.
 Professor W. G. HAMMOND, Iowa State University.
 Professor I. F. QUINBY, of New York.
 Captain S. R. FRANKLIN, U. S. N.
 Pay-Director J. C. ELDREDGE, U. S. N.
 Honorable L. C. HOUK, of Tennessee.
 Honorable J. A. LEONARD, of Minnesota.
 Chief-Engineer J. P. SPRAGUE, U. S. N.
 Medical-Director F. M. GUNNELL, U. S. N.
 Honorable C. A. CURTIS, of Massachusetts.

ACADEMIC CALENDAR,

1877-78.

1877.		
Sept.	20.—Beginning of first term	Thursday.
1878.		
Jan. 28—Feb. 2.	—Semi-annual examination	Monday—Saturday.
Feb.	2.—End of first term	Saturday.
June	10—20.—Annual examination	Monday—Thursday.
June	20.—End of academic year 1877-78	Thursday.
June	21.—Examination of candidates for admission as Cadet-Midshipmen	Friday.
Sept.	5.—Examination of candidates for admission as Cadet-Engineers	Thursday.
Sept.	12.—Examination of candidates for admission as Cadet-Midshipmen	Thursday.
Sept.	20.—Beginning of first term 1878-79	Friday.

The academic months end on the following days :

1877-78.					
October	Oct. 27	February	Mar. 9		
November	Nov. 24	March	April 6		
December	Dec. 22	April	May 4		
January	Jan. 26	May	June 1		
1878-79.					
October	Oct. 26	February	Mar. 8		
November	Nov. 23	March	April 5		
December	Dec. 21	April	May 3		
January	Jan. 25	May	June 7		

CALENDAR FOR 1877-78.

SEPTEMBER.						
Sun.	M.	T.	W.	T.	F.	Sat.
.....	.....	.....	.....	.....	.....	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	.....	.....	.....	.....	.....	.....

MARCH.						
Sun.	M.	T.	W.	T.	F.	Sat.
.....	.....	.....	.....	.....	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	.....	.....	.....	.....	.....	.....

OCTOBER.						
.....	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	.....	.....	.....

APRIL.						
.....	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	.....	.....	.....	.....

NOVEMBER.						
.....	.....	.....	.....	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	.....

MAY.						
.....	.....	.....	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	.....

DECEMBER.						
.....	.....	.....	.....	.....	.....	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	.....	.....	.....	.....	.....

JUNE.						
.....	.....	.....	.....	.....	.....	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	.....	.....	.....	.....	.....	.....

JANUARY.						
.....	.....	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	.....	.....

JULY.						
.....	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	.....	.....	.....

FEBRUARY.						
.....	.....	.....	.....	.....	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	.....	.....

AUGUST.						
.....	.....	.....	.....	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

OFFICERS
OF THE
UNITED STATES NAVAL ACADEMY.

REAR ADMIRAL C. R. P. RODGERS,
SUPERINTENDENT.

COMMANDER S. D. GREENE,
Senior Aid to the Superintendent.

ACADEMIC STAFF.

COMMANDER EDWARD TERRY,
Commandant of Cadets.

LIEUTENANT-COMMANDER B. H. MCCALLA
Assistant to the Commandant of Cadets.

SEAMANSHIP, NAVAL TACTICS, AND NAVAL CONSTRUCTION.

COMMANDER H. L. HOWISON,
Head of Department.

LIEUTENANT-COMMANDER C. V. GRIDLEY,
LIEUTENANT W. H. EMORY,
LIEUTENANT L. C. LOGAN,
LIEUTENANT A. P. OSBORN,

Instructors in Seamanship, Naval Tactics, and Naval Construction.

MATTHEW STROHM,
Instructor in Boxing, Swimming, and Gymnastics.

ORDNANCE AND GUNNERY.

COMMANDER A. T. MAHAN,
Head of Department.

LIEUTENANT-COMMANDER MERRILL MILLER,
In charge of practice-ships.

LIEUTENANT J. C. SOLEY,
LIEUTENANT DUNCAN KENNEDY,
LIEUTENANT T. B. MASON,
LIEUTENANT A. V. WADHAMS,

Instructors in Naval Gunnery, and Infantry Tactics.

ANTOINE J. CORBESIER,
Sword-Master.

JEAN B. RETZ,
GEORGE HEINTZ,
Assistant Sword-Masters.

MATHEMATICS.

PROFESSOR W. W. HENDRICKSON,

Head of Department.

LIEUTENANT-COMMANDER C. W. KENNEDY,
 LIEUTENANT SOCRATES HUBBARD, A. M.,
 LIEUTENANT J. H. DAYTON,
 LIEUTENANT C. S. SPERRY,
 LIEUTENANT C. C. CORNWELL,
 LIEUTENANT R. R. INGERSOLL,
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 MASTER G. L. DYER,
 ENSIGN T. B. HOWARD,

Instructors in Mathematics.

STEAM-ENGINEERING.

CHIEF ENGINEER C. H. BAKER,

Head of Department.

PASSED ASSISTANT ENGINEER L. W. ROBINSON, C. E., M. M. E.,
 PASSED ASSISTANT ENGINEER C. H. GREENLEAF,
 PASSED ASSISTANT ENGINEER W. L. NICOLL,
 PASSED ASSISTANT ENGINEER DAVID JONES,
 PASSED ASSISTANT ENGINEER C. H. MANNING,
 PASSED ASSISTANT ENGINEER ROBERT CRAWFORD,
 PASSED ASSISTANT ENGINEER C. W. RAE, C. E.,

Instructors in Steam-Engineering.

ASTRONOMY, NAVIGATION, AND SURVEYING.

COMMANDER J. A. HOWELL,

Head of Department.

LIEUTENANT-COMMANDER A. D. BROWN,
 LIEUTENANT R. M. G. BROWN,
 LIEUTENANT C. G. BOWMAN,

Instructors in Astronomy, Navigation, and Surveying.

PHYSICS AND CHEMISTRY.

COMMANDER W. T. SAMPSON,

Head of Department.

LIEUTENANT-COMMANDER T. F. JEWELL,
 ENSIGN A. A. MICHELSON,
 PROFESSOR N. M. TERRY, A. M., PH. D.,
 PROFESSOR C. E. MUNROE, S. B.,

Instructors in Physics and Chemistry.

MECHANICS AND APPLIED MATHEMATICS.

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Head of Department.

LIEUTENANT M. R. S. MACKENZIE,
 LIEUTENANT S. W. VERY,
 LIEUTENANT HARRY KNOX,

Instructors in Mechanics and Applied Mathematics.

ENGLISH STUDIES, HISTORY, AND LAW.

PROFESSOR J. R. SOLEY, A. B.,

Head of Department.

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 LIEUTENANT J. F. MEIGS,
 LIEUTENANT F. M. WISE,
 LIEUTENANT R. T. JASPER,
 LIEUTENANT W. P. POTTER,
 LIEUTENANT J. B. BRIGGS,
 ENSIGN A. M. KNIGHT,
 ASSISTANT PROFESSOR W. W. FAY, A. M.

Instructors in English Studies, History, and Law.

MODERN LANGUAGES.

PROFESSOR L. F. PRUD'HOMME, A. M.,

Head of Department.

LIEUTENANT R. C. DERBY,
 LIEUTENANT A. P. NAZRO,
 MASTER AARON WARD,
 MASTER W. P. CLASON,
 ASSISTANT PROFESSOR A. V. S. COURCELLE,
 ASSISTANT PROFESSOR EUGENE DOVILLIERS,
 ASSISTANT PROFESSOR JULES LEROUX,
 ASSISTANT PROFESSOR HIPPOLYTE DALMON,

Instructors in French and Spanish.

PROFESSOR PEDRO MONTALDO,

Instructor in Spanish.

DRAWING.

PROFESSOR MARSHAL OLIVER,

Head of Department.

ENSIGN H. F. REICH,
 ASSISTANT PROFESSOR C. F. BLAUVELT, N. A.,

Instructors in Drawing.

OFFICERS NOT ATTACHED TO THE ACADEMIC STAFF.

MEDICAL INSPECTOR A. L. GIHON, A. M., M. D.
 PASSED ASSISTANT SURGEON W. A. CORWIN, M. D.
 PASSED ASSISTANT SURGEON G. E. HARMON, M. D.
 ACTING ASSISTANT SURGEON T. O. WALTON, M. D.
 PAYMASTER A. S. KENNY, A. B., *Commissary.*
 PAYMASTER W. N. WATMOUGH.
 PAYMASTER S. T. BROWNE, *Storekeeper.*
 CHAPLAIN ROBERT HUDSON, M. A.
 ASSISTANT PROFESSOR THOMAS KARNEY, A. M., *Librarian.*
 J. J. GRAFF, *Assistant Librarian.*
 R. M. CHASE, *Secretary.*

J. G. GLYNN, *First Clerk.*
 SAMUEL JICKLING, *Second Clerk.*
 C. M. MCLEOD, *Clerk to Commandant of Cadets.*
 EUGENE WORTHINGTON, *Third Clerk to Superintendent.*

MARINE GARRISON.

CAPTAIN G. P. HOUSTON, *Commanding.*
 FIRST LIEUTENANT W. S. MUSE.
 FIRST LIEUTENANT J. M. T. YOUNG.
 FIRST LIEUTENANT A. C. KELTON.
 SECOND LIEUTENANT S. H. GIBSON.

GUNNER.

ROBERT SOMMERS.

MATES.

C. J. MURPHY	} Attached to the United States Gunnery-ship Santee and to the Sloop-of-war Dale.
SAMUEL GEE	
WILLIAM G. SMITH	
L. M. MELCHER	
ROBERT SILVER	} Attached to United States Steamer Nantucket (iron-clad.)
BENJAMIN G. PERRY	
JOSEPH RODGERS	} Attached to the United States Steamer Phlox (steam-tender.)

ACADEMIC BOARD.

REAR-ADMIRAL C. R. P. RODGERS, U. S. N.
 COMMANDER EDWARD TERRY, U. S. N.
 COMMANDER J. A. HOWELL, U. S. N.
 COMMANDER H. L. HOWISON, U. S. N.
 COMMANDER A. T. MAHAN, U. S. N.
 COMMANDER W. T. SAMPSON, U. S. N.
 CHIEF ENGINEER C. H. BAKER, U. S. N.
 PROFESSOR W. W. HENDRICKSON, U. S. N.
 PROFESSOR J. M. RICE, S. B., U. S. N.
 PROFESSOR J. R. SOLEY, A. B., U. S. N.
 PROFESSOR L. F. PRUD'HOMME, A. M.
 PROFESSOR MARSHAL OLIVER.

CADET-OFFICERS.

CADET-LIEUTENANT-COMMANDER.

J. H. FILLMORE.

CADET-LIEUTENANTS.

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CADET-MASTERS.

H. S. KNAPP. R. C. SMITH. H. McL. P. HUSE EDWARD LLOYD.
 P. B. BIBB, *Adjutant*.

CADET-ENSIGNS.

J. G. GLENNON. F. J. SPRAGUE. J. H. L. HOLCOMBE. S. F. BIDDLE.

First Captains of Gun's Crews.

A. C. Almy.	J. E. McDonnell.	A. G. Rogers.	J. H. Shipley.
R. K. Wright.	J. E. Craven.	G. R. Clark.	B. C. Dent.
W. C. Canfield.	T. W. Ryan.	G. Sparhawk.	G. H. Stafford.
C. N. Atwater.	J. J. Knapp.	G. F. Ormsby.	J. H. Hetherington.

Second Captains of Gun's Crews.

W. L. Todd.	H. H. Hooke.	John Hood.	Harvey Wike.
W. P. White.	A. B. Clements.	H. S. Chase.	C. C. Marsh.
Prentice Bailey.	R. H. Miner.	J. M. Moore.	J. S. Sloan.
Harry Kimmell.	E. E. Hayden.	L. M. Garrett.	C. W. Jungen.

CADET-PASSED-ASSISTANT-ENGINEER.

I. N. HOLLIS.

CADET-ASSISTANT-ENGINEERS.

F. J. Schell. M. E. Cooley.

Cadet-Machinists.

H. W. Spangler.	G. W. McElroy.	F. C. Bieg.	J. L. Gow.
J. H. Bull.	R. S. Griffin.	F. W. Bartlett.	C. L. Wight

CADET-MIDSHIPMEN.

Graduating class of 1877—45 members.

Order of general merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in—							Sea-service in practice-ships.			
				Years.	Months.	Seamanship.	Naval construction.	Ordnance.	Marine engines.	Navigation.	Light and Heat.	Law.	Spanish.	Number of demerits.	Months.	Days.
*1	Fullam, William Freeland	New York	Sept. 24, 1873	17	11	3	2	1	3	5	2	4	9	77	5	27
*2	Witzel, Horace Mark	Wisconsin	June 5, 1873	15	4	4	1	2	1	1	1	3	12	111	5	27
3	Dodge, Omenzo George	Kansas	June 13, 1873	17	0	1	6	6	4	4	3	8	29	122	5	27
4	David, William Glenn	New York	Sept. 25, 1873	17	2	5	3	5	8	7	4	2	7	110	5	27
5	Winterhalter, Albert Gustavus	Michigan	Sept. 22, 1873	16	11	10	4	22	26	3	12	1	1	78	5	27
6	Jeffries, Alfred	Texas	June 9, 1873	17	9	2	5	2	13	12	13	20	4	23	5	27
7	Orehard, John Madison	Missouri	June 11, 1873	15	9	22	11	9	7	9	11	26	16	165	5	27
8	Bronaugh, William Venable	Kentucky	June 5, 1873	17	9	10	14	18	10	8	7	7	34	73	5	27
9	Paris, Kussel Clark	New York	Sept. 23, 1873	14	1	34	7	27	10	2	8	26	2	138	5	27
10	Taylor, Hiero	Illinois	Sept. 29, 1873	17	0	35	15	22	8	12	10	17	15	71	5	27
11	Jordan, John Newell	Maine	June 5, 1873	17	8	6	16	7	5	11	6	14	10	97	5	27
12	Fecheler, Augustus Francis	New York	Sept. 26, 1873	15	9	18	8	18	26	6	14	15	8	104	5	27
13	Brunby, Thomas Mason	Georgia	Sept. 26, 1873	17	10	9	12	7	6	18	9	8	25	87	5	27
14	Brice, Jonathan Kearsley	Ohio	June 13, 1873	17	8	16	9	13	2	10	5	23	35	146	5	27
15	Wright, Edward Everett	Massachusetts	Sept. 20, 1873	17	0	25	29	17	29	16	23	10	16	117	5	27
16	Bostwick, Frank Matteson	Wisconsin	Sept. 26, 1873	16	5	22	37	18	26	21	20	18	18	143	5	27
17	Woodworth, Selim Edward	At large	Sept. 30, 1872	15	5	14	10	4	24	32	33	11	3	89	9	13
18	Gleaves, Albert	Tennessee	June 10, 1873	15	5	13	12	13	38	24	18	25	19	86	5	27
19	Constant, Walter Malbee	Indiana	June 13, 1873	16	3	16	19	25	14	19	24	19	22	78	5	27
20	Nel-on, Valentine Sevier	Tennessee	June 6, 1873	17	5	7	19	22	32	34	15	12	12	117	5	27
21	Oliver, James Harrison	Georgia	June 12, 1873	16	0	27	40	38	35	38	16	20	5	106	5	27

22	Dodd, Arthur Wright	Indiana	June 6, 1873	16	10	19	24	37	18	14	27	12	11	63	5	27
23	Wakenshaw, Harry Charles	New Jersey	June 10, 1873	16	6	39	17	30	18	14	36	16	29	122	5	27
24	Parker, James Phillips	North Carolina	June 6, 1873	17	8	21	27	40	33	25	37	5	24	51	5	27
25	Hodges, Ben Ward	Mississippi	Sept. 23, 1873	17	5	29	42	28	24	19	24	6	6	104	5	27
26	Grant, Albert Weston	Wisconsin	June 9, 1873	17	1	12	22	38	29	30	39	40	22	107	5	27
27	Rogers, Henry Horace	Illinois	June 13, 1873	17	9	32	29	41	21	17	28	20	19	82	5	27
28	Denfeld, George William	Massachusetts	Sept. 26, 1873	17	1	32	17	15	14	23	19	40	37	82	5	27
29	Dunn, Herbert Omar	Rhode Island	June 6, 1873	16	0	37	29	11	12	26	22	26	19	136	5	27
30	Halpine, Nicholas John Lano Trowbridge	New York	June 9, 1871	14	8	14	34	3	16	40	29	33	14	144	9	13
31	Case, Frank Blair	Michigan	June 7, 1873	15	7	8	26	35	34	35	10	32	32	63	5	27
32	Toppau, Frank Winship	Massachusetts	Sept. 22, 1873	17	9	25	23	35	16	22	24	24	29	90	5	27
33	Dombaug, Harry Mason	Ohio	June 6, 1873	16	4	19	33	28	20	30	35	35	40	135	9	13
34	Heath, Frank Rives	At large	Sept. 23, 1873	16	4	41	38	31	42	26	29	34	28	110	5	27
35	Lausdale, Phillip Van Horn	At large	June 6, 1873	15	3	27	35	25	37	29	38	39	43	114	5	27
36	Benson, William Shepherd	Georgia	Sept. 21, 1872	16	11	35	32	34	23	42	34	31	32	93	9	13
37	Werlich, Percival Julius	Wisconsin	June 16, 1873	16	4	37	40	11	21	38	21	20	27	139	5	27
38	Rush, William Rees	Louisiana	June 6, 1872	14	8	44	25	15	35	33	29	42	40	147	9	13
39	Harrison, Horace Wellford	At large	Sept. 24, 1872	16	9	39	19	43	40	40	29	30	26	149	9	13
40	Hall, Alfred Lovell	Ohio	Sept. 16, 1872	17	11	32	35	21	41	39	39	38	42	119	9	13
41	Burdick, William Leslie	Ohio	Sept. 26, 1873	16	9	41	39	10	29	43	42	37	38	157	5	27
42	Johnson, Henry Albert	At large	June 5, 1872	17	0	30	43	33	38	37	43	35	39	157	9	13
43	Cook, Simon	Missouri	June 6, 1873	16	11	31	27	42	44	36	41	43	35	44	5	27
44	Katz, Koroku	Empire of Japan	June 7, 1871	16	4	45	44	44	43	44	44	44	44	85	5	27
45	Kunitomo, Gito	Empire of Japan	Oct. 7, 1872	17	1	43	45	45	45	45	45	44	44	47	5	27

CADET-MIDSHIPMEN.
First class—36 members.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in—										Sea-service in practice-ships.		
				Years.	Months.	Seamanship.	Naval tactics.	Ordnance instructions.	Infantry tactics.	Astronomy.	Electricity.	Mechanics and applied mathematics.	Composition.	French.	Spanish.	Number of demerits.	Months.	Days.
28	Almy, Augustus Craven.....	At large.....	June 6, 1872.....	15	6	30	21	31	9	36	25	24	32	32	182	9	12	
15	Atwater, Charles Nelson.....	New York.....	Sept. 24, 1873.....	16	3	13	11	20	25	22	15	21	3	10	82	7	26	
14	Bibb, Peyton Benajah.....	Alabama.....	June 12, 1874.....	17	3	6	13	7	4	16	32	15	17	13	57	5	18	
19	Biddle, Spencer Fullerton Baird...	At large.....	June 13, 1874.....	15	5	13	34	15	26	18	17	20	20	27	195	5	18	
22	Caulfield, William Chase.....	At large.....	Sept. 23, 1873.....	16	1	17	29	29	37	32	32	24	22	11	91	7	26	
29	Clark, George Ramsey.....	Ohio.....	June 9, 1874.....	17	3	32	30	36	30	29	35	28	11	27	161	5	18	
23	Craven, John Eccleston.....	At large.....	Sept. 24, 1874.....	15	10	29	14	20	28	28	20	18	35	32	182	5	18	
35	Dent, Baine Caruthers.....	At large.....	June 5, 1873.....	16	7	27	35	35	31	35	30	28	33	34	191	7	27	
*1	Fillmore, John Hudson	Illinois.....	Sept. 24, 1874.....	17	10	1	1	2	2	1	1	1	15	14	104	5	18	
5	Glennon, James Henry.....	California.....	Sept. 24, 1874.....	17	7	11	15	18	15	7	5	5	17	3	107	5	18	
34	Hetherington, James Henry.....	Iowa.....	June 9, 1874.....	17	7	22	28	22	31	34	35	31	13	37	163	5	18	
13	Holcombe, John Hite Lee.....	Georgia.....	June 27, 1874.....	17	9	9	17	3	19	21	10	18	17	6	65	5	18	
37	Hooke, Horatio Hill.....	Illinois.....	Sept. 26, 1874.....	17	0	37	37	34	23	25	31	24	36	34	190	5	18	
17	Hughes, Richard Morris.....	Pennsylvania.....	Sept. 25, 1874.....	15	8	26	23	19	28	14	17	14	13	5	143	5	18	
12	Huse, Harry McLaren Pinkney....	New York.....	Sept. 30, 1874.....	15	10	15	10	14	17	24	7	16	1	1	134	5	18	
31	Kimmell, Harry.....	Pennsylvania.....	Sept. 23, 1874.....	14	5	36	16	27	22	17	12	11	22	18	144	5	18	
8	Knapp, Harry Shepard.....	Connecticut.....	June 26, 1874.....	18	0	9	23	11	14	10	14	9	5	4	147	5	18	
36	Knapp, John Joseph.....	Missouri.....	June 9, 1874.....	16	8	35	32	31	33	30	27	28	29	36	113	5	18	
16	Lloyd, Edward, jr.....	Maryland.....	June 17, 1874.....	16	11	18	6	12	6	12	25	17	24	7	53	5	18	
*3	McClain, Charles Sumner	Indiana.....	Nov. 2, 1874.....	17	2	3	3	3	3	4	6	4	10	11	107	5	18	
20	McDonnell, John Edmund.....	Nevada.....	Sept. 30, 1874.....	16	4	25	31	13	21	27	23	31	20	23	54	5	18	
7	Ormsby, George Francis.....	Ohio.....	Sept. 24, 1873.....	17	4	14	27	8	24	13	9	7	4	7	57	5	26	

4	Quinby, John Gardner.....	At large	June 12, 1874	14	10	5	4	8	12	3	2	2	26	14	13	143	5	18
*2	Rodgers, Thomas Slidell.....	At large	Sept. 24, 1874	16	1	4	9	10	1	2	4	3	1	1	1	137	5	18
6	Rodgers, William Ledyard.....	California.....	June 11, 1874	14	4	8	19	6	7	8	8	6	7	16	20	139	5	7
25	Rogers, Allan Grey.....	North Carolina.....	June 12, 1874	14	6	32	26	15	35	32	21	23	31	26	24	175	6	18
21	Ryan, Thomas William.....	Pennsylvania.....	June 13, 1873	16	11	21	20	31	34	26	19	22	15	19	21	188	7	26
26	Shipley, John Harry.....	Missouri.....	Sept. 30, 1874	16	6	28	23	23	26	31	29	31	26	30	33	153	5	18
9	Smith, Roy Campbell.....	Virginia.....	Oct. 3, 1874	16	2	16	7	17	4	4	10	10	6	7	18	53	5	18
24	Sparhawk, George.....	Massachusetts.....	Sept. 24, 1874	17	6	23	36	28	11	20	34	31	30	23	28	163	5	18
10	Sprague, Frank Julian.....	Massachusetts.....	Sept. 29, 1874	17	2	18	5	5	19	6	3	8	14	21	23	173	5	18
33	Stafford, George Henry.....	Iowa.....	June 10, 1874	17	11	24	8	24	16	15	27	37	8	25	26	105	5	18
27	Todd, Wilson Lemuel.....	Pennsylvania.....	June 5, 1873	15	1	34	12	29	17	18	24	31	28	33	31	212	3	18
32	White, William Porter.....	At large	June 30, 1874	15	5	20	17	24	10	23	16	13	37	31	35	175	5	18
11	Wood, Albert Nor on.....	Indiana.....	Sept. 24, 1873	16	6	2	2	4	12	9	13	11	24	29	12	49	5	26
18	Wright, Robert Kemp.....	Pennsylvania.....	June 12, 1873	14	8	7	22	26	8	11	22	24	9	17	11	131	7	26

CADET-MIDSHIPMEN.
Second class—44 members.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in—					Sea-service in practice-ships.		Number of demerits.
				Years.	Months.	Mathematics.	Physics and chemistry.	History and rhetoric.	French.	Drawings.	Months.	Days.	
12	Bailey, Prentice	Georgia	Sept. 28, 1874	17	1	10	16	18	18	28	3	0	199
26	Barnard, Louis Hull	Colorado	June 13, 1874	16	11	30	28	15	39	79	2	19	79
24	Bell, John Arthur	West Virginia	June 13, 1874	16	11	21	16	29	32	29	2	19	143
43	Bitler, Reuben Oscar	Pennsylvania	June 19, 1875	16	1	40	47	39	30	15	2	19	171
15	Blish, John Bell	Indiana	Sept. 15, 1875	15	0	15	12	26	9	46	2	19	140
39	Brown, Guy Warner	Indiana	June 19, 1875	17	2	29	45	32	35	41	2	19	143
38	Buchanan, Wilson Wildman	Ohio	June 19, 1875	17	3	36	34	33	47	17	2	19	86
16	Caboon, James Blake	Vermont	June 10, 1874	17	6	13	23	14	29	16	2	19	137
5	Chase, Henry Sanders	Louisiana	June 21, 1875	16	10	6	1	11	6	7	2	19	154
*1	Clements, Abner Brush	Missouri	June 21, 1875	17	6	1	2	6	22	9	2	19	134
28	Cunningham, Andrew Chase	New York	June 9, 1874	16	4	33	20	30	27	10	2	19	66
22	Dougherty, John Allen	Missouri	June 12, 1874	16	9	22	15	30	39	14	2	19	84
44	Drayton, Percival Langdon	At large	June 10, 1874	16	2	45	42	45	4	20	2	19	293
36	Garrett, Leigh Osborn	Illinois	Sept. 13, 1875	15	1	18	40	24	30	13	2	19	162
7	Garrett, Le Roy Mason	New York	Sept. 16, 1875	18	0	7	13	8	5	4	2	19	86
29	Gibbons, John Henry	Michigan	Sept. 15, 1875	16	8	37	31	9	18	41	2	19	240
18	Gilbison, John	Kentucky	Feb. 16, 1874	18	0	16	14	34	33	18	2	19	86
13	Gill, William Andrew	Pennsylvania	June 21, 1875	16	5	17	7	17	25	29	2	19	199
25	Gorgas, Miles Carpenter	At large	Sept. 11, 1875	14	2	27	35	37	3	19	2	19	51
40	Graham, William Alfred	New York	Sept. 28, 1874	14	11	42	32	40	40	33	2	19	234
17	Harlow, Charles Henry	New York	Sept. 15, 1875	17	0	18	11	10	14	39	2	19	166
*3	Hayden, Edward Everett	Massachusetts	June 21, 1875	16	2	3	6	5	2	2	2	19	132

74	Hood, John	Alabama	Sept. 15, 1875	15	9	2	4	4	10	6	140	2	19
11	Jungen, Charles William	Wisconsin	Sept. 24, 1874	15	6	12	8	16	7	24	226	2	19
32	Kellogg, Francis Woodruff	Connecticut	June 21, 1875	17	10	35	28	22	38	25	152	2	19
12	Lopez, Robert Files	Tennessee	Sept. 29, 1874	17	6	30	30	34	26	45	138	2	19
27	Mausb, Charles Carleton	Indiana	Sept. 14, 1875	17	1	13	10	2	12	8	166	2	19
9	Menefee, Daniel Preston	California	Sept. 25, 1874	16	6	32	19	21	20	21	165	2	19
*2	Miner, Randolph Huntington	Ohio	June 19, 1875	17	7	4	3	1	1	27	79	2	19
6	Moore, John McConnell	Indiana	June 21, 1875	15	6	7	5	3	8	33	199	2	19
35	Mudd, John Alexis	At large	Sept. 11, 1875	15	3	33	36	41	44	22	256	2	19
†	Poundstone, Homer Clarke	West Virginia	Sept. 24, 1874	14	0	.....	.....	.....	.....	.....	47	2	19
34	Read, Maurice Lance	South Carolina	Sept. 23, 1874	15	10	41	26	36	33	47	166	2	19
14	Ripley, Charles Stedman	At large	June 17, 1875	17	11	11	25	25	17	1	162	2	19
19	Robinson, Herbert Judson	New Hampshire	Sept. 15, 1875	16	6	28	27	15	21	5	120	2	19
21	Schwerin, Kennie Pierre	New York	Sept. 25, 1874	16	1	20	36	20	23	12	89	2	19
23	Sears, Walter Jesse	Pennsylvania	June 21, 1875	17	8	24	21	22	11	31	165	2	19
10	Sloan, Robert Sage	New York	June 21, 1875	15	7	7	9	7	36	25	226	2	19
20	Snowden, Thomas	New York	June 21, 1875	17	10	26	33	11	13	23	70	2	19
37	Sturdivant, Harry Leland	Maine	June 13, 1874	17	8	24	24	46	40	37	230	2	19
33	Thom, William Arthur	At large	June 21, 1875	17	8	37	38	26	16	35	112	2	19
30	Tillman, Edwin Ford	Tennessee	Sept. 14, 1875	16	10	23	21	43	46	31	216	2	19
42	Welsh, George Silvis	Pennsylvania	Sept. 24, 1874	17	7	39	41	44	44	35	210	2	19
8	Wike, Harvey	Illinois	Sept. 16, 1875	14	7	5	16	19	27	43	185	2	19

† Out of the service — months.

CADET-MIDSHIPMEN.
Third class—71 members.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in--				Sea-service in practice-ships.		
				Years.	Months.	Mathematics.	English and history.	French.	Drawing.	Number of demerits.	Months.	Days.
9	Ackerman, Albert Ammeban.....	New Jersey.....	June 21, 1876.....	16	11	9	6	39	28	45	2	18
*2	Alger, Philip Rounseville.....	At large.....	Sept. 11, 1876.....	17	0	1	4	5	7	245	2	18
53	Ashmore, Henry Beekwith.....	At large.....	Oct. 3, 1876.....	15	4	61	46	21	50	281	2	18
44	Bailey, John Bellamy.....	Florida.....	Sept. 15, 1875.....	16	7	43	34	24	21	132	2	18
†	Beale, Joseph.....	Pennsylvania.....	Oct. 12, 1874.....	14	10	.....	.....	.....	.....	.....	2	19
§	Belmont, Oliver Hazard Perry.....	New York.....	Sept. 30, 1874.....	14	10	.....	.....	.....	.....	.....	2	19
*3	Bernadon, John Baptiste.....	At large.....	Sept. 12, 1876.....	17	10	6	2	2	3	163	2	18
13	Bowdon, Frank Welch.....	Texas.....	Sept. 11, 1875.....	17	7	20	9	10	67	95	2	18
43	Brainard, Frederick Roland.....	Illinois.....	June 21, 1876.....	17	9	34	67	68	10	61	2	18
63	Brimley, Edward.....	At large.....	Sept. 18, 1876.....	16	3	63	57	33	69	156	2	18
25	Bronner, Edmund Devening.....	New York.....	Sept. 11, 1876.....	17	7	41	10	45	9	89	2	18
45	Brown, James Stephen.....	Tennessee.....	Sept. 11, 1875.....	17	2	29	57	35	60	260	2	18
42	Bullitt, upward Henry.....	At large.....	Sept. 11, 1875.....	17	11	37	36	52	60	101	2	18
40	Cabaniss, Charles.....	Virginia.....	June 21, 1876.....	16	8	48	18	21	74	34	2	18
74	Clark, Lewis Jacob.....	Alabama.....	Sept. 11, 1876.....	14	7	52	79	68	56	255	2	18
49	Cooke, Paul Byram.....	At large.....	Sept. 13, 1875.....	16	4	44	56	50	40	217	2	18
20	Dewey, Theodore Gibbs.....	South Carolina.....	June 19, 1875.....	16	0	24	34	30	2	114	2	18
37	Dickson, Joseph Morrill.....	Texas.....	June 14, 1876.....	15	5	40	10	51	75	67	2	18
30	Dillman, George Lincoln.....	Iowa.....	June 19, 1876.....	16	1	15	64	55	16	261	2	18
6	Drake, James Calhoun.....	Arkansas.....	June 19, 1875.....	17	11	3	33	19	34	215	2	18
*1	Dresel, Herman George.....	Ohio.....	Sept. 18, 1876.....	17	8	2	1	1	1	90	2	18
38	Duncan, Louis.....	Kentucky.....	Sept. 11, 1876.....	15	6	25	42	61	47	113	2	18
41	Emerson, William Henry.....	At large.....	Oct. 10, 1876.....	16	4	46	29	53	34	69	2	18

CADET-MIDSHIPMEN, THIRD CLASS—RELATIVE STANDING. 19

24	Eyre, Manning Kennard	At large	Sept. 11, 1876	15	6	26	19	6	49	253	18
8	Fillebrown, Horatio Ladd	South Carolina	June 19, 1875	16	1	7	19	19	4	104	18
19	Finley, Henry Marzatto	Ohio	June 21, 1875	16	5	13	42	15	37	291	18
§	French, George Ross	At large	June 21, 1875	17	11						5
29	Gray, James	Illinois	Sept. 12, 1876	17	8	34	29	23	31	221	18
57	Gresham, William Albert	Indiana	June 19, 1875	17	3	58	64	61	14	86	0
55	Haeseler, Francis Joy	Pennsylvania	Sept. 12, 1876	16	5	54	63	57	10	251	18
†	Harrison, George Edward	Michigan	June 19, 1875	17	11						2
21	Haskell, Porter David	Michigan	Sept. 12, 1876	17	4	36	14	10	55	46	18
52	Hill, Charles Homer	Wisconsin	Sept. 14, 1875	16	0	30	47	65	70	709	0
7	Houigan, Patrick William	New York	June 21, 1876	16	7	8	2	35	36	257	18
15	Howze, Arthur Robertson	Mississippi	June 21, 1876	15	7	11	45	17	43	97	18
35	Huntoon, Fitz-Aubert	Texas	Sept. 15, 1875	16	10	23	37	48	37	244	18
†	King, William Nephew, jr.	Georgia	June 21, 1875	17	5						2
55	Lovise, Leonidas	Louisiana	June 21, 1875	17	6	55	60	48	39	107	18
10	Lieper, Edwards Fayssoux	Pennsylvania	June 21, 1875	16	7	18	15	16	21	19	18
†	Luby, John Frazer	New York	June 21, 1875	17	11						2
§	Maxwell, William John	At large	June 9, 1874	15	2						19
16	Mayer, Augustus Nowkirk	Iowa	June 17, 1876	17	3	17	22	46	41	140	18
14	Morgan, Stokely	Arkansas	June 14, 1876	16	11	14	17	59	23	56	2
22	Muir, William Carpenter Pencileton	Kentucky	June 21, 1876	17	3	30	26	7	28	180	18
11	Murray, James Bernard	New York	Sept. 12, 1876	16	5	19	7	12	33	264	18
64	Nash, Edwin White	Ohio	Sept. 11, 1876	16	11	60	49	76	58	258	18
36	Niblack, Albert Parker	Indiana	Sept. 12, 1876	17	2	49	10	32	42	99	18
5	Norton, Luman Spooner	Vermont	Sept. 12, 1876	17	0	4	8	31	15	204	18
17	Parko, Thomas Aloysius	West Virginia	June 21, 1876	16	8	22	16	4	64	102	18
31	Perkins, Con Marrast	At large	Sept. 11, 1875	14	11	39	25	46	12	154	2
66	Perry, George Ernest	Illinois	Sept. 12, 1876	16	10	57	52	39	81	259	0
27	Phelps, Harry	New Jersey	Sept. 13, 1876	15	7	10	52	27	53	285	18
58	Richardson, Walter Gates	Massachusetts	Sept. 12, 1876	16	9	70	26	71	51	154	18
47	Rodman, Hugh	Kentucky	Sept. 13, 1875	16	8	46	42	58	28	247	18
23	Rohrbacker, Joseph Hamilton	Pennsylvania	June 21, 1876	17	9	26	13	28	62	98	18
26	Safford, William Edwin	Ohio	Sept. 11, 1876	16	9	42	22	13	13	86	18
†	Scott, George Andrew	Indiana	June 21, 1875	17	0						2

CADET-MIDSHIPMEN.
Third class—71 members—Continued.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Mathematics.	English and history.	French.	Drawing.	Number of demerits.	Sea-service in practice-ships.	
				Years.	Months.						Months.	Days.
39	Scott, Richard Hamilton	Minnesota	June 21, 1876	17	9	28	39	77	43	115	2	18
62	Sims, William Sowden	Pennsylvania	June 21, 1876	17	8	69	64	70	6	196	2	18
28	Simpson, Edward, jr.	At large	June 21, 1876	15	9	30	26	26	48	59	2	18
5	Swift, Franklin	Massachusetts	June 9, 1874	16	1	.....	.....	.....	.....	.....	2	19
12	Truxtun, William	At large	June 21, 1876	15	3	15	19	43	7	120	2	18
50	Van Duzer, Louis Sayre	New York	Sept. 13, 1876	15	3	63	40	66	24	78	2	18
67	Vance, Zebulon Baird	North Carolina	June 23, 1876	16	0	63	57	71	58	280	2	18
34	Wall, Francis Richardson	Mississippi	June 23, 1876	16	11	30	22	39	73	121	2	18
33	Walters, John Sproston	At large	June 21, 1876	14	11	21	51	29	26	168	2	18
†	Webster, Edwin Belden	Connecticut	Sept. 23, 1874	16	6	.....	.....	.....	.....	.....	2	19
13	West, George Ernest	New York	Sept. 12, 1876	14	5	11	37	37	46	107	2	19
+	Wilkinson, Ernest	Louisiana	June 19, 1875	17	2	.....	.....	.....	.....	.....	2	19
*4	Wolfsberger, William Henry	Illinois	Sept. 12, 1876	17	7	5	5	33	26	75	2	18
61	Worthington, Thomas	Alabama	June 19, 1876	16	7	53	62	78	51	179	2	18

§ Turned back from the second class. † Out of the service — months. ‡ Suspended for one academic year by order of the Navy Department.

CADET-MIDSHIPMEN.

Fourth class—120 members.

Name.	State.	Date of admission.	Age at date of admission.	
			Yrs.	Mos.
Andrews, Horace Burlingame	Michigan	June 22, 1876	15	1
Arnold, John Thompson	Wyoming Terr	Sept. 27, 1877	17	10
Babcock, William Frederick	Louisiana	Sept. 19, 1876	15	8
Ballentine, Henry Laird	Tennessee	June 20, 1877	16	6
Barnett, George	Wisconsin	June 19, 1877	17	6
Bell, Everett Nelson	Tennessee	Aug. 23, 1877	17	11
Bellinger, Oscar Henry	Oregon	June 21, 1876	16	6
Bennett, Louis Slocum	New Jersey	Sept. 11, 1877	15	9
Best, Wesley Erastus	Illinois	Sept. 11, 1876	17	1
Blake, Robert Bunch	North Carolina	Sept. 11, 1877	16	7
Blow, George Preston	Virginia	Sept. 14, 1876	15	11
Bryan, Samuel	Maryland	June 14, 1876	17	3
Buck, Guy Morville	Maine	Sept. 11, 1877	16	10
Bunts, Frank Emory	Ohio	June 20, 1877	16	1
Capehart, Edward Everett	Ohio	June 22, 1877	17	11
Carroll, Eugene	At large	June 19, 1877	16	2
Clark, George	Illinois	June 22, 1877	14	11
Cooke, Abbott Stanislaus	Illinois	June 26, 1877	17	11
Cockle, Rudolphus Rouse	Illinois	June 21, 1875	17	8
Cohen, Harry Radcliffe	At large	June 20, 1877	15	4
Colwell, James Hane	At large	June 20, 1877	16	10
Conway, John Joseph	New York	Sept. 11, 1877	17	10
Craven, Macdonough	New York	June 21, 1876	17	7
Craig, Ben Holliday	Missouri	June 14, 1876	16	8
Crenshaw, James Davis	Texas	Sept. 11, 1877	17	10
Dashiell, Robert Brooke	At large	June 19, 1877	16	11
Deal, Edwin Peter	Missouri	June 14, 1876	17	2
Dent, Sidney Hope	At large	Sept. 11, 1876	15	7
Donnelly, Michael Joseph	Wisconsin	June 21, 1877	17	7
Doyen, Charles Augustus	New Hampshire	June 21, 1876	16	9
Doyle, James Gregory	Pennsylvania	June 21, 1877	17	1
Dresser, James Walter	Minnesota	June 21, 1877	16	8
Dudley, Charles Jackson	Georgia	Sept. 11, 1877	17	0
Eldredge, Houston	At large	Oct. 2, 1876	15	7
Emmett, William LeRoy	At large	June 26, 1876	16	11
Enouye Yonoske	Empire of Japan	Sept. 18, 1877	19	.....
Fletcher, William Bartlett	Vermont	Sept. 11, 1877	15	8
Flournoy, William Francis	Louisiana	June 19, 1877	17	9
Ford, William Griffing	Arkansas	Sept. 11, 1877	15	7
Forrest, Ruthertford Worster	New York	Sept. 12, 1877	16	2
Forshew, Robert Pierpont	New York	June 21, 1876	16	11
Foster, Edward West	Tennessee	June 21, 1876	16	1
Franklin, Thomas Baber	Tennessee	Sept. 15, 1875	17	11
Garland, John Spotswood	At large	June 21, 1876	17	4
George, Charles Peaslee	Illinois	July 1, 1876	16	3
Grambs, William Jacob	Pennsylvania	Sept. 11, 1877	15	5
Gurley, Revere Randolph	District of Columbia	Sept. 11, 1877	16	1
Haines, Henry Cargill	At large	June 26, 1875	15	7
Hains, Robert Peter	Maine	Sept. 18, 1876	16	3

CADET-MIDSHIPMEN.

Fourth class—120 members—Continued.

Name.	State.	Date of admission.	Age at date of admission.	
			Yrs.	Mos.
Harmon, Eugene Marion	Ohio	June 20, 1877	17	10
Hayden, Thomas Warren	Massachusetts	Sept. 11, 1877	16	8
Harrison, Edward Hanson	At large	June 21, 1877	15	10
Hoogewerff, John Adrian	At large	June 21, 1877	16	7
Hoke, William Peyton	Kentucky	Sept. 11, 1877	16	4
Howard, William Lauriston	Connecticut	Sept. 11, 1877	17	8
Hubbard, Nathaniel Mead	At large	Sept. 11, 1877	17	6
Hunicke, Felix Harmau	Missouri	Sept. 11, 1877	17	6
Jackson, Malcolm	Indiana	Sept. 11, 1877	17	5
Jones, Alexander James	Illinois	Sept. 11, 1877	17	2
Karmany, Lincoln	Pennsylvania	Sept. 12, 1877	17	0
Kase, Spencer Mettler	Illinois	Sept. 11, 1877	17	10
Kent, George Edward	New York	June 21, 1877	16	10
Kennett, Percy	Montana Ter	Sept. 12, 1877	17	0
Key, Albert Lenoir	Tennessee	June 21, 1877	16	11
Kimball, John Arthur	Massachusetts	Sept. 12, 1877	17	0
Lamkin, John Alcus	Mississippi	June 20, 1877	17	5
Laucheimer, Charles Henry	Maryland	Sept. 11, 1877	17	11
Lindsey, John Howard	Pennsylvania	June 21, 1876	16	2
Linnard, Joseph Hamilton	Pennsylvania	June 21, 1877	16	9
McCrea, Alexander Sterling	At large	Oct. 2, 1876	17	2
McGiffin, Philo Norton	Pennsylvania	Sept. 11, 1877	16	9
McJunkin, Ira	Pennsylvania	June 20, 1877	17	4
McKee, Llewelyn Thomas	Pennsylvania	June 20, 1877	17	0
McNutt, Finley Alexander	Indiana	Sept. 11, 1877	16	9
McWhorter, Jacob Gray	Georgia	Sept. 12, 1877	16	2
Mahoney, James Edward	Massachusetts	Sept. 12, 1876	16	9
Matthews, Thomas Henry	Pennsylvania	Sept. 12, 1876	16	1
Miner, John Rice	Ohio	June 21, 1876	15	10
Morgan, Daniel	Kentucky	Sept. 11, 1877	17	10
Morris, Walter Ellis	Pennsylvania	June 20, 1877	16	6
Moses, Franklin James	South Carolina	Sept. 11, 1877	16	9
Morton, Oliver Dwight	Ohio	June 21, 1877	17	11
Olyphant, Alexander Coulter	New Jersey	Sept. 12, 1877	17	5
Orlopp, Max Anton	Arkansas	June 19, 1876	17	1
Paine, Walter Taylor	Ohio	Sept. 11, 1877	14	11
Parker, Felton	Iowa	Nov. 6, 1876	16	0
Parsons, Arthur Carlton	Iowa	June 21, 1876	17	11
Patterson, Samuel Achmuty Wainwright	At large	June 21, 1876	16	6
Phythian, Charles Taylor	Kentucky	June 19, 1877	16	8
Pierce, Byron Gilmore	Illinois	June 21, 1877	17	4
Pleasants, Charles	Indiana	Sept. 11, 1877	17	11
Poyer, John Martin	At large	June 21, 1877	15	9
Printup, David Lawrence	New York	June 21, 1877	17	5
Rees, John Levermore	Michigan	June 21, 1877	17	4
Rider, Frederick Clinton	Rhode Island	Sept. 12, 1877	17	6
Robinson, William Moody	At large	June 23, 1876	17	4
Rodgers, Guy George	Tennessee	Sept. 23, 1876	14	1
Russell, William Worthington	At large	Sept. 12, 1876	17	9

CADET-MIDSHIPMEN.

Fourth class—120 members—Continued.

Name.	State.	Date of admission.	Age at date of admission.	
			Yrs.	Mos.
Schock, John Loomis.....	Pennsylvania.....	June 19, 1877	17	4
Semple, Lorenzo.....	Alabama.....	Sept. 11, 1877	16	0
Serata, Tasuker.....	Empire of Japan.....	Sept. 12, 1877	19	0
Slack, William Yarnall.....	Missouri.....	June 19, 1877	16	11
Smies, Frederick William.....	Ohio.....	June 22, 1877	16	6
Smyth, James Wilson.....	New York.....	June 19, 1877	16	5
Stahle, Frederick Henry.....	California.....	Sept. 11, 1877	15	4
Stayton, William Henry.....	Delaware.....	June 21, 1877	16	3
Stewart, Charles West.....	Illinois.....	June 21, 1877	17	10
Sutton, Francis Eskridge.....	New York.....	June 21, 1877	16	6
Uriu, Sotokichi.....	Empire of Japan.....	Sept. 12, 1877	19	0
Weeks, John Wingate.....	New Hampshire.....	June 21, 1877	17	2
Weller, Ovington Eugene.....	Maryland.....	Sept. 12, 1877	15	7
Whittlesey, William Bailey.....	New York.....	Sept. 12, 1877	17	2
White, Harry Kidder.....	Dakota Ter.....	Sept. 19, 1877	17	6
Wickes, Joseph Lee.....	Pennsylvania.....	Sept. 11, 1877	14	9
Wilkes, Gilbert.....	Utah Ter.....	Sept. 12, 1877	14	0
Will, James Frederick.....	Iowa.....	Sept. 11, 1876	17	3
Williamson, Samuel Hill.....	North Carolina.....	Sept. 11, 1876	17	10
Wilson, Henry Braid.....	New Jersey.....	Sept. 11, 1876	15	7
Woodward, Joseph Janvier.....	At large.....	June 21, 1877	16	9
Wright, Silas Haynes.....	Michigan.....	June 23, 1876	17	10

† Turned back by order of the Navy Department.

CADET-ENGINEERS.

First class—14 members.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in--							Sea-set-vice in practice-ships.			
				Years.	Months.	Steam-engineering.	Astronomy.	Electricity.	Mechanics and applied mathematics.	Composition.	French.	Spanish.	Number of demerits.	Months.	Days.	
9	Bardlett, Frank William.....	Michigan.....	Oct. 1, 1874	18	1	7	11	6	12	8	8	6	8	163	4	27
8	Bieg, Frederick Charles.....	Missouri.....	Oct. 1, 1874	18	6	9	10	9	8	1	5	1	5	100	4	27
4	Bull, Goold Hoyt.....	Pennsylvania.....	Oct. 1, 1874	18	4	5	4	4	5	4	5	4	5	119	4	27
11	Burd, George Eli.....	Massachusetts.....	Oct. 1, 1874	17	5	10	12	7	9	8	9	11	106	4	27	
7	Cooley, Mortimer Elwyn.....	New York.....	Oct. 1, 1874	19	6	4	4	5	7	7	13	11	104	4	27	
12	Gage, Howard.....	Michigan.....	Oct. 1, 1874	18	1	14	6	10	10	13	10	10	140	4	27	
13	Gow, John London.....	Indiana.....	Oct. 1, 1874	18	4	13	9	12	11	14	12	15	140	4	27	
6	Griffin, Robert Stanislaus.....	Virginia.....	Oct. 1, 1874	17	0	8	6	8	6	8	4	1	78	4	27	
*1	Holks, Ira Nelson.....	Kentucky.....	Oct. 1, 1874	18	6	1	2	2	2	6	3	2	100	4	27	
	McElroy, George Wightman.....	Michigan.....	Oct. 1, 1874	16	6	6	8	10	4	15	11	16	198	4	27	
*2	Schell, Franklin Jacob.....	Pennsylvania.....	Oct. 1, 1874	17	1	3	1	1	3	2	2	3	62	4	27	
*3	Spangler, Harry Wilson.....	Pennsylvania.....	Oct. 1, 1874	16	9	2	2	3	1	8	8	7	121	4	27	
14	Wight, Charles Leslie.....	Massachusetts.....	Oct. 1, 1874	21	1	12	14	14	12	12	16	13	139	4	27	
10	Wilmer, Joseph Ringgold.....	Maryland.....	Oct. 1, 1874	20	10	11	13	14	14	3	7	6	112	4	27	

CADET-ENGINEERS.

Second class—24 members.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in—						Sea-service in practice-ships.	
				Years.	Months.	Mathematics.	Physics and chemistry.	History and composition.	French.	Drawing.	Number of demerits.	Months.	Days.
9	Acker, Edward O'Connor...	Pa	Sept. 15, 1875	17	4	18	1	7	16	7	53	2	20
10	Annan, John Wesley	Mass.	Sept. 15, 1875	19	...	13	11	6	10	13	213	2	20
22	Baker, John Howard	R. I ...	Sept. 15, 1875	18	...	19	18	24	27	19	150	2	20
11	Bennett, Frank Marion.....	Mich..	Oct. 1, 1874	17	5	12	14	4	14	5	182	2	20
16	Bevington, Martin.....	Ohio ..	Sept. 15, 1875	17	10	22	13	11	19	11	183	2	20
*2	Bowles, Francis Tiffany..	Mass..	Sept. 15, 1875	16	11	2	3	4	4	3	92	2	20
17	Bowers, Frederic Clay.....	N. J...	Sept. 15, 1875	17	7	16	17	17	8	25	230	2	20
5	Bryan, Benjamin Chambers	N. J ..	Sept. 15, 1875	17	1	4	9	10	7	15	128	2	20
4	Carr, Clarence Alfred	Pa	Sept. 15, 1875	19	1	6	6	3	6	21	112	2	20
21	Carter, Thomas Frederic ...	Ky	Oct. 1, 1873	18	3	20	23	19	25	14	76	2	20
12	Crygier, John Ulysses.....	N. Y ..	Oct. 1, 1874	16	6	9	12	16	9	6	171	2	20
18	Elseffer, Harry Smith	Iowa..	Oct. 1, 1874	19	3	17	16	19	13	8	174	2	20
*3	Gatewood, Richard.....	Va	Sept. 15, 1875	15	11	3	8	1	1	4	106	2	21
8	Hunt, Andrew Murray	Ind ...	Sept. 15, 1875	16	2	2	7	9	5	17	155	2	20
14	Isbester, Richard Thornton..	Tenn..	Sept. 15, 1875	18	3	14	10	13	22	17	198	2	20
§	Ivers, Henry King.....	Mo	Oct. 1, 1874	18	6	...	...	...	...	...	...	4	27
6	Lubbe, Charles Bethel.....	Pa	Sept. 15, 1875	18	3	5	4	15	19	15	156	2	20
*1	McFarland, Walter Martin	D. C...	Sept. 15, 1875	16	1	1	2	2	2	20	108	2	20
7	Noell, Michael Daniel	Pa ...	Sept. 15, 1875	17	5	7	4	8	14	27	5	2	20
13	Norton, Harold Percival....	N. Y ..	Oct. 1, 1874	18	10	9	14	14	21	2	85	2	20
†	Pickrell, Joseph McCall....	Va	Oct. 1, 1874	17	2	...	...	...	...	...	...	2	9
20	Salisbury, George Robert...	Mo	Oct. 1, 1874	19	7	21	20	25	12	9	85	2	20
15	Scribner, Edward Herschell	Mass..	Oct. 1, 1874	19	11	11	19	22	17	11	100	2	20
19	Talcott, Charles Gratiot....	Va	Sept. 15, 1875	16	...	14	21	21	15	10	157	2	20

§ Turned back from the first class.

† Re-instated.

CADET-ENGINEERS.

Third class—21 members.

Order of annual merit.	Name.	State.	Date of admission.	Age at date of admission.		Order of merit in—						Sea-service in practice-ships.	
				Years.	Months.	Mathematics.	English and history.	French.	Drawing.	Number of demerits.	Months.	Days.	
11	Allderice, William Hillary.....	Penn.	Sept. 14, 1876	16	9	8	11	20	4	288	2	18	
19	Belden, Charles Emory.....	Ohio..	Sept. 14, 1876	18	6	16	22	23	18	92	2	18	
4	Durand, William Frederick.....	Conn.	Sept. 14, 1876	17	6	4	8	12	5	96	2	18	
18	Hall, Harry.....	Penn.	Sept. 14, 1876	17	9	20	16	25	18	78	2	18	
*1	Hasson, William Frederick												
	Converse.....	Ohio..	Sept. 14, 1876	19	4	1	2	1	8	99	2	18	
13	King, Charles Alfred.....	Md...	Sept. 14, 1876	18	1	13	7	18	16	149	2	18	
10	Kinkaid, Thomas Wright.....	Ohio..	Sept. 14, 1876	16	6	11	4	14	20	47	2	18	
15	Lang, William.....	N. Y..	Sept. 14, 1876	18	8	17	11	11	24	185	2	18	
23	Lillebridge, Frederick May.....	Conn.	Sept. 14, 1876	17	9	19	23	15	14	163	2	18	
12	Manning, Charles Edward.....	N. Y..	Sept. 14, 1876	17	6	12	13	8	12	76	2	18	
20	Mathews, Clarence Herbert.....	Ohio..	Sept. 14, 1876	19	7	18	21	22	10	227	2	18	
16	Miller, Clarence Alexander.....	Va....	Oct. 27, 1875	18	11	14	19	24	17	302	2	18	
3	Miner, Leo Dwight.....	Ohio..	Sept. 14, 1876	17	7	3	9	16	3	45	2	18	
5	Sample, Winfield Scott.....	Penn.	Sept. 14, 1876	18	10	5	15	21	7	74	2	18	
8	Smith, Albert Edward.....	Wis...	Sept. 14, 1876	17	8	9	6	19	9	115	2	18	
*2	Stahl, Albert William.....	N. Y..	Sept. 14, 1876	19	4	2	1	3	1	160	2	18	
17	Weaver, William Dixon.....	Penn.	Sept. 14, 1876	19	1	22	9	12	15	297	2	18	
6	Wood, Joseph Learned.....	Va....	Sept. 14, 1876	20	2	6	3	2	22	108	2	18	
7	Woods, Arthur Tannatt.....	Mass.	Sept. 14, 1876	17	7	7	20	5	2	52	2	18	
14	Worthington, John Leeds.....	Md...	Sept. 14, 1876	18	3	15	18	6	22	83	2	18	
9	Young, Albert Osborn.....	N. Y..	Sept. 14, 1876	19	2	9	14	10	13	122	2	18	

CADET-ENGINEERS.

Fourth class—30 members.

Name.	State.	Date of admission.	Age at date of admission.		Relative standing as determined at examination for appointment.
			Years.	Months.	
Anderson, Martin Augustus	Wisconsin	Sept. 13, 1877	19	11	14
Arnold, Solon	Maryland	Sept. 14, 1876	22	2	23
Bankson, Lloyd	Pennsylvania	Sept. 13, 1877	19	9	24
Beach, Robert James	New York	Sept. 13, 1877	19	10	9
Bush, Arthur Richmond	Massachusetts	Sept. 13, 1877	17	4	10
Byrne, James Edwin	Massachusetts	Sept. 14, 1876	19	5	19
Day, Willis Bunner	Ohio	Sept. 13, 1877	19	10	3
Dowst, Frank Butland	Massachusetts	Sept. 13, 1877	18	3	15
Eckel, Herman	Ohio	Sept. 14, 1876	20	2	25
Gartley, William Henry	Pennsylvania	Sept. 13, 1877	18	1	2
Gladstone, Daniel Demarest	New Jersey	Sept. 13, 1877	18	1	18
Kaemmerling, Gustave	Indiana	Sept. 13, 1877	19	3	8
McAllister, Andrew	New York	Sept. 13, 1877	19	3	21
McAlpine, Kennett	Virginia	Sept. 13, 1877	17	0	23
McCreary, Harry Raynor	Maryland	Sept. 13, 1877	17	7	12
Moritz, Albert	New York	Sept. 13, 1877	17	2	6
Nichols, Arthur	New York	Sept. 14, 1876	19	5	5
Parsons, Isaac Brown	Michigan	Sept. 13, 1877	17	8	7
Perkins, Lyman Burnham	Connecticut	Sept. 13, 1877	18	7	11
Prevear, Herbert Pranker	Massachusetts	Sept. 13, 1877	19	8	25
Redgrave, DeWitt Clinton	Maryland	Sept. 13, 1877	19	2	20
Sampson, Bias Clay	Illinois	Sept. 13, 1877	19	6	5
Shallenberger, Oliver Blackburn	Pennsylvania	Sept. 13, 1877	17	4	1
Smith, William Stuart	New York	Sept. 13, 1877	19	8	19
Stewart, Jr., Robert	Michigan	Sept. 13, 1877	19	5	22
Temple, Arthur Wallace	Massachusetts	Sept. 15, 1875	20	9	1
Webster, William Townsend	New York	Sept. 13, 1877	20	1	4
White, William Wilmot	Pennsylvania	Sept. 13, 1877	17	11	16
Whitham, Jay Manuel	Illinois	Sept. 13, 1877	19	0	17
Whittle, Llewellyn Fairfax	Virginia	Sept. 13, 1877	18	9	13

SUMMARY.

October 1, 1877.

CADET-MIDSHIPMEN.

First class	36 members.
Second class	44 members.
Third class	71 members.
Fourth class	120 members.

271

CADET-ENGINEERS.

First class	14 members.
Second class	24 members.
Third class	21 members.
Fourth class	30 members.

89

Total

360

Students from the Empire of Japan are received for instruction under a resolution of the Senate and House of Representatives of the United States, approved July 27, 1863.

RESIGNATIONS AND DISMISSALS.

October 1, 1876, to October 1, 1877.

RESIGNATIONS.

Cadet-Midshipman R. P. Fauntleroy.....	Oct. 21, 1876
Cadet-Midshipman R. J. Cooper.....	Nov. 21, 1876
Cadet-Midshipman F. L. Young.....	Dec. 6, 1876
Cadet-Midshipman E. F. Kimball.....	Mar. 5, 1877
Cadet-Midshipman F. C. Skinner.....	April 5, 1877
Cadet-Midshipman L. C. Bishop.....	May 2, 1877
Cadet-Midshipman A. D. Carrington.....	May 16, 1877
Cadet-Midshipman H. G. Jones.....	May 18, 1877
Cadet-Engineer H. F. Harrison.....	May 23, 1877
Cadet-Midshipman W. E. W. Hall.....	May 26, 1877
Cadet-Midshipman S. Le Roy Jackson.....	May 29, 1877
Cadet-Midshipman A. D. Firestone.....	June 4, 1877
Cadet-Midshipman Herbert Bliss.....	June 12, 1877
Cadet-Midshipman A. S. Cooke.....	June 13, 1877
Cadet-Midshipman E. A. von Starkloff.....	June 15, 1877
Cadet-Midshipman E. C. Thompson.....	June 15, 1877
Cadet-Midshipman E. B. W. Haymond.....	June 19, 1877
Cadet-Midshipman D. C. B. Conness.....	June 19, 1877
Cadet-Midshipman Richard Jones.....	June 22, 1877
Cadet-Midshipman J. G. Whitfield.....	June 22, 1877
Cadet-Midshipman S. E. Whitwell.....	June 22, 1877
Cadet-Midshipman J. E. Wood.....	June 22, 1877
Cadet-Engineer D. J. Mercier.....	June 22, 1877
Cadet-Engineer J. H. Yarnall.....	June 22, 1877
Cadet-Midshipman C. C. J. Norris.....	June 25, 1877
Cadet-Midshipman J. C. Biddle.....	June 25, 1877
Cadet-Midshipman J. A. Perry.....	June 25, 1877
Cadet-Midshipman H. W. Thatcher.....	June 25, 1877
Cadet-Engineer H. J. Bailey.....	Sept. 23, 1877

DISMISSALS.

Cadet-Midshipman F. B. Parsons.....	Oct. 12, 1876
Cadet-Midshipman C. W. Garrett.....	Nov. 1, 1876
Cadet-Midshipman F. A. Woodworth.....	Nov. 1, 1876
Cadet-Midshipman R. W. Barkley.....	Dec. 13, 1876
Cadet-Midshipman J. C. Wilson.....	Feb. 8, 1877
Cadet-Midshipman A. R. Hasson.....	July 26, 1877

DROPPED.

Cadet-Midshipman T. L. Bonfils.....	July 26, 1877
Cadet-Midshipman J. L. Purcell.....	Sept. 24, 1877
Cadet-Engineer H. G. Dungan.....	Sept. 24, 1877
Cadet-Midshipman A. Cramer.....	Sept. 28, 1877

Cadet-Midshipman F. L. Berkeley.....	Sept. 23, 1877
Cadet-Midshipman Washington Irving	Sept. 23, 1877
Cadet-Midshipman J. P. Porter	Sept. 23, 1877
Cadet-Midshipman J. T. Wallace	Sept. 23, 1877
Cadet-Midshipman B. H. Williamson	Sept. 23, 1877
Cadet-Midshipman M. M. Reamer	Sept. 23, 1877
Cadet-Midshipman John Taylor.....	Sept. 23, 1877
Cadet-Engineer F. L. Bartholow	Sept. 23, 1877
Cadet-Engineer T. J. Hogan	Sept. 23, 1877
Cadet-Engineer W. S. Smith	Sept. 23, 1877

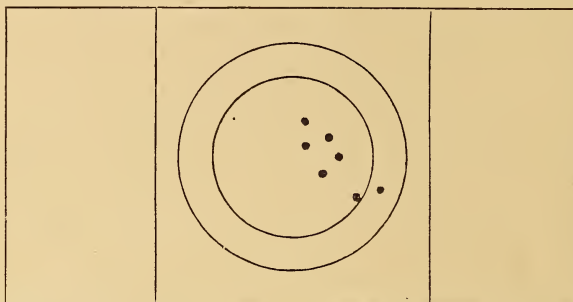
† Re-instated and since deceased.

ACCEPTANCE OF RESIGNATION REVOKED.

Cadet Midshipman Leonidas Levissee.....	Dec. 14, 1876
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ANNUAL RIFLE-MATCH

BETWEEN MEMBERS OF THE GRADUATING CLASS, JUNE 10-20, 1877.



Target showing score of H. M. Witzel.

TERMS OF THE MATCH.

Target, that adopted by the National Rifle Association of 1875.
Distance, 400 yards.
Rifle, Remington Navy.

Position, that of a skirmisher lying down.
Number of shots, 7.
Possible score, 35.

Name.	1.	2.	3.	4.	5.	6.	7.	Total.	Referred to target of 1876.
H. M. Witzel	5	5	4	5	5	5	5	34	28
W. G. David.....	5	5	5	5	5	3	5	33	26
P. I. Werlich	4	5	4	5	5	5	5	33	27
A. W. Dodd	5	3	5	5	5	5	4	32	27
W. L. Burdick.....	3	3	5	5	5	5	5	31	26
Total.....								163	134

Class score.

Number of points made by class, 45 members	736
Average score	16.4
Number of points referred to target in use in 1876.....	655
Average score referred to target in use in 1876	14.6

SUMMER-CRUISE, 1877.

OFFICERS AND CADET-MIDSHIPMEN

ATTACHED TO THE

UNITED STATES PRACTICE-SHIP CONSTELLATION.

Commander EDWARD TERRY, *Commanding*.
Lieutenant-Commander C. V. GRIDLEY, *Executive Officer*.
Lieutenant-Commander C. W. KENNEDY, *Navigator*.
Lieutenant S. HUBBARD, *Senior Watch-Officer*.
Lieutenant C. C. CORNWELL, *Watch-Officer*.
Lieutenant J. F. MEIGS, *Watch-Officer*.
Lieutenant C. G. BOWMAN, *Watch-Officer*.
Lieutenant A. P. NAZRO, *Watch-Officer*.
Master W. P. CLASON, *Watch-Officer*.
Ensign T. B. HOWARD, *Watch-Officer*.
Ensign A. A. MICHELSON, *Watch-Officer*.
Surgeon, W. J. SIMON.
Assistant Surgeon, GEORGE ARTHUR.
Paymaster, A. S. KENNY.
Chaplain, ROBERT HUDSON.
Boatswain, A. MILNE.
Gunner, ROBERT SOMMERS.
Clerk to Commandant of Cadets, C. M. McLEOD.
Paymaster's Clerk, JAMES MCGREGOR.

CADET-MIDSHIPMEN.

First class (36).

A. C. Almy.	J. H. Glennon.	E. Lloyd, jr.	J. H. Shipley.
C. N. Atwater.	J. H. Hetherington.	C. S. McClain.	R. C. Smith.
P. B. Bibb.	J. H. L. Holcombe.	J. E. McDonnell.	G. Sparhawk.
S. F. B. Biddle.	H. H. Hooke.	G. P. Ormsby.	F. J. Sprague.
W. C. Canfield.	R. M. Hughes.	J. G. Quinby.	G. H. Stafford.
G. R. Clark.	H. M. P. Huse.	T. S. Rodgers.	W. L. Todd.
J. E. Craven.	H. Kimmell.	W. L. Rodgers.	W. P. White.
B. C. Dent.	H. S. Kuapp.	A. G. Rogers.	A. N. Wood.
J. H. Fillmore.	J. J. Knapp.	T. W. Ryan.	R. K. Wright.

J. L. Purcell.

Third class (61).

A. Ackerman.	J. B. Bernadou.	E. D. Bronner.	C. Cabanis.
P. R. Alger.	F. W. Bowdon.	J. S. Brown.	L. J. Clark.
H. B. Ashmore.	F. R. Brainard.	Samuel Bryan.	P. B. Cooke.
J. B. Bailey.	E. Brinley.	H. H. Bullitt.	T. G. Dewey.

Third class—Continued.

J. M. Dickson.	H. C. Haines.	A. P. Niblack.	F. Swift.
G. L. Dillman.	P. D. Haskell.	L. S. Norton.	W. Truxton.
J. C. Drake.	P. W. Hourigan.	T. A. Parke.	L. S. Van Duzer.
H. G. Dresel.	A. R. Howze.	C. M. Perkins.	Z. B. Vance.
L. Duncan.	F. A. Hantoon.	H. Phelps.	F. R. Wall.
W. H. Emerson.	E. F. Lieper.	W. G. Richardson.	J. S. Watters.
M. K. Eyre.	L. Levesee.	H. Rodman.	G. E. West.
H. L. Fillebrown.	A. N. Mayer.	J. H. Rohrbacher.	W. H. Wolfersberger.
H. M. Finley.	S. Morgan.	W. E. Scford.	T. Worthington.
G. R. French.	W. C. P. Muir.	R. H. Scott.	W. N. King.
James Gray.	J. B. Murray.	W. S. Sims.	J. F. Luby.
F. J. Haeseler.	E. W. Nash.	E. Simpson.	E. B. Webster.

The Constellation sailed from Annapolis Roads, June 26, for Buzzard's Bay, touched at New Bedford, Mass.; from thence to the navy-yard, New York; returning, touched at Newport, R. I., and Norfolk, Va., and arrived at the Naval Academy September 13, 1877.

 UNITED STATES PRACTICE-SHIP MAYFLOWER.

Commander W. T. SAMPSON, *Commanding.*

Lieutenant D. KENNEDY.

Lieutenant T. B. M. MASON.

Passed Assistant Engineer L. W. ROBINSON.

Passed Assistant Engineer C. W. RAE.

Assistant Surgeon A. A. AUSTIN.

CADET-ENGINEERS.

First class (14).

F. W. Bartlett.	M. E. Cooley.	J. N. Hollis.	H. W. Spangler.
F. C. Beig.	H. Gage.	H. K. Ivers.	C. L. Wight.
G. H. Bull.	J. L. Gow.	G. W. McElroy.	J. R. Wilmer.
G. E. Burd.	R. S. Griffin.	F. J. Schell.	

Third class.

W. H. Allderdice.	T. W. Kinkaid.	L. D. Miner.	J. L. Wood.
C. E. Belden.	W. Lang.	A. Nichols.	A. T. Woods.
W. F. Durand.	F. M. Lillebridge.	W. S. Sample.	J. L. Worthington.
H. Hall.	C. E. Manning.	A. E. Smith.	A. O. Young.
W. F. C. Hasson.	C. H. Mathews.	A. W. Stahl.	
C. A. King.	C. A. Miller.	W. D. Weaver.	

The Mayflower left her anchorage June 26, and accompanied the Constellation to sea; proceeded thence to Wilmington, Del., Chester and Philadelphia, Pa., navy-yard, Brooklyn, Cold Springs, Newburgh, and West Point, N. Y.; returning touched at Newport torpedo station and Providence, R. I., sailed thence for the Chesapeake, touched at Norfolk, and arrived at the Naval Academy September 12, 1877.

Table of coefficients to be applied to the final averages in each branch in preparing the merit-rolls.

CADET-MIDSHIPMEN.

Department.	Subject.	Coefficients.				Graduating maximum for required studies.
		First year—fourth class.	Second year—third class.	Third year—second class.	Fourth year—first class.	
Seamanship.....	Seamanship.....			12	12	} 136
	Naval Construction.....				8	
	Naval Tactics.....			2		
Ordnance and Gunnery.....	Ordnance Instructions.....			3		} 76
	Infantry Tactics.....			2		
	Ordnance and Armor.....				14	
Mathematics.....	Algebra and Geometry.....	9				} 108
	Trigonometry, Analytical Geometry, and Descriptive Geometry.....		18			
Steam-Engineering.....	Marine Engines.....				12	48
Astronomy, Navigation, and Surveying.....	General Astronomy.....			6		} 88
	Navigation and Surveying.....				16	
Physics and Chemistry.....	Physics and Chemistry.....		8			} 88
	Electricity.....			6		
	Light and Heat.....				8	
Mechanics and Applied Mathematics.....	Mechanics and Applied Mathematics.....			14		56
English Studies, History, and Law.....	English and History.....	6				} 80
	History and Rhetoric.....		6			
	Composition.....			5		
Modern Languages.....	Public Law.....				3	} 64
	French.....	2	4	4		
Drawing.....	Spanish.....			3	3	} 16
	Line-drawing and Topography.....	2				
	Sketching.....		2			
Maximum for each year.....		76	152	228	304	760
Deduction for each demerit.....		.004	.007	.013	.03

Table of coefficients to be applied to the final averages in each branch, &c.—Continued.

CADET-ENGINEERS.

Department.	Subject.	Coefficients.				Graduating maximum for required studies.
		First year—fourth class.	Second year—third class.	Third year—second class.	Fourth year—first class.	
Seamanship.....	Naval Construction	8	32
Mathematics.....	Algebra and Geometry	9	108
	Trigonometry, Analytical Geometry, and Descriptive Geometry.....	.....	18	.....	.....
Steam-Engineering	Mechanical Drawing	2	2	236
	Fabrication of Machinery.....	.....	.....	.....	.....
	Designing of Machinery .....	.....	.....	19	36
Astronomy, Navigation, and Surveying	Marine Engines	24
	General Astronomy.....	.....	.....	6	.....
Physics and Chemistry	Physics and Chemistry	8	116
	Electricity.....	.....	.....	6	.....
	Light and Heat .....	.....	.....	.....	8
Mechanics and Applied Mathematics.....	Physical Measurements.....	7	100
	Mechanics and Applied Mathematics .....	.....	.....	14	.....
	Mechanics .....	.....	.....	.....	11
English Studies, History, and Law	English and History	6	80
	History and Rhetoric .....	.....	6	.....	.....
	Composition .....	.....	.....	5	.....
Modern Languages	Public Law	3	64
	French.....	2	4	4	.....
	Spanish.....	.....	.....	3	3
Maximum for each year.....	76	152	228	304	760
Deduction for each demerit004	.007	.01	.03

MERIT-ROLLS FOR 1876-77.

Merit-rolls, made out yearly for each class, show the proficiency of the Cadets in each branch of study. The numbers given in the preceding table, showing the relative weight of the different branches, are used as coefficients; the final mark in each branch (on a scale of 4) being multiplied by the number assigned to that branch. The sum of the products, after making deductions for conduct, is the final mark of the Cadet for the year.

In the case of Cadets who take an elective course in any branch, the final mark in that branch is determined by adding to the final mark received in the required course one-fifth of the amount by which the final mark in the elective course exceeds 2.50.

In the graduating merit-roll, the final mark for the course is determined by the sum of the four yearly marks.

"Cadets who attain 85 per cent. of the multiple in any year shall be distinguished by a star affixed to their names on the merit-rolls."—(Regulations U. S. Naval Academy, § 150.)

Cadets whose names are marked thus (†) were found deficient, but were allowed to continue in their classes on condition of passing at a re-examination.

Those marked thus (‡) were found deficient, and turned back, to recommence the studies of their respective classes.

Those marked thus (§) were found deficient, and recommended to be dropped.

a denotes absence from examination.

CADET-MIDSHI MEN.

Merit-roll of first class (45 members), annual examination, June, 1877, and general merit-roll for four years.

Order of general merit.	Name.	Order of general merit.										General aggregate for four years.			
		48	48	56	48	64	32	12	12	304	228		152	67.91	751.91
		Seamanship.	Naval construction.	Ordnance.	Marine-engines.	Navigation.	Light and heat.	Law.	Spanish.	Conduct.	Aggregate for fourth year.	Aggregate for third year.	Aggregate for second year.	Aggregate for first year.	
1	Maxima.....														
2	William F. Fullam.....	40.80	20.20	51.52	35.84	55.36	30.56	10.17	9.36	2.31	204.50	198.65	135.57	61.53	660.13
3	Horace M. Witzel.....	39.06	20.36	50.54	45.72	58.88	31.24	10.26	9.24	3.33	208.91	192.93	132.43	61.26	655.53
4	Omearo G. Dodge.....	41.52	26.32	47.74	39.12	56.00	30.32	9.96	8.46	3.05	255.78	185.14	128.32	56.30	625.54
5	William G. David.....	39.84	26.06	49.84	37.32	53.92	29.84	10.32	9.57	3.30	224.31	184.55	124.47	56.33	623.06
6	Alfred J. Jeffries.....	36.00	26.80	43.18	34.32	56.16	23.92	10.62	11.10	2.34	242.86	184.25	131.11	60.61	621.83
7	John M. Orchard.....	41.40	26.64	50.54	36.00	52.00	25.76	8.94	10.32	0.69	250.91	180.70	129.39	64.48	615.08
8	William V. Brounagh.....	33.96	25.04	46.90	37.80	53.60	26.48	8.97	8.94	4.95	236.74	186.80	128.63	57.84	610.01
9	Russel C. Paris.....	36.00	24.56	44.80	36.60	53.76	27.52	9.99	8.25	2.19	239.89	178.13	128.61	59.54	606.17
10	Hiero Taylor.....	32.76	25.92	43.12	36.00	57.28	27.28	8.97	10.98	4.14	238.77	193.22	121.75	49.40	603.14
11	John N. Jordan.....	38.52	24.24	47.60	38.64	52.32	27.76	9.72	9.33	9.11	245.22	176.60	120.06	56.77	598.65
12	Augustus F. Fechteler.....	37.04	24.96	44.80	34.32	54.40	25.52	9.66	9.48	2.61	234.98	172.14	123.55	60.28	590.35
13	Thomas M. Brumby.....	35.84	24.96	47.60	37.92	48.80	27.20	9.96	8.61	2.61	239.52	167.77	119.78	52.69	579.76
14	Jonathan K. Brice.....	37.84	25.28	45.22	40.32	52.96	27.44	9.18	8.22	3.31	241.07	173.04	113.64	50.01	578.21
15	Edward E. Wright.....	33.84	22.80	44.94	34.20	43.92	23.04	9.80	8.94	3.51	231.07	167.49	119.90	53.02	560.46
16	Frank M. Bosworth.....	33.96	21.20	44.80	34.32	48.32	23.28	9.30	8.91	4.29	219.80	167.85	120.53	57.44	565.95
17	Selm E. Woodworth.....	36.12	23.12	50.25	34.44	45.44	22.60	9.87	10.62	2.67	231.20	165.97	110.87	54.46	562.50
18	Albert Glenaves.....	36.36	24.96	45.22	32.40	47.04	24.16	9.06	8.79	2.55	235.41	161.23	112.87	54.41	559.92
19	Walter M. Constant.....	35.24	23.92	43.26	35.64	48.48	22.88	9.27	8.76	3.34	235.15	164.20	113.50	51.30	559.24
20	Valentine S. Nelson.....	37.80	23.92	43.68	33.84	44.80	24.64	9.75	9.24	3.51	224.16	162.39	113.00	58.63	553.08
21	James H. Oliver.....	31.72	20.64	39.50	33.00	45.92	24.32	9.24	10.23	3.18	213.79	163.50	117.00	59.71	554.06
22	Arthur W. Dodd.....	34.44	23.12	40.46	35.28	50.56	22.40	9.75	9.27	1.89	223.39	156.54	118.33	54.73	552.94
23	Harry C. Wakenshaw.....	31.56	24.00	42.70	33.96	50.56	21.41	9.57	8.46	3.69	219.91	164.88	121.56	46.03	552.38
24	James P. Parker.....	34.32	22.88	39.62	33.60	46.72	21.36	10.11	8.70	1.53	215.78	166.41	113.44	53.59	551.22
25	Ben W. Hodges.....	33.48	20.40	42.98	34.44	48.48	22.88	10.08	9.96	3.12	218.58	159.88	114.93	54.72	549.11
26	Albert W. Grant.....	36.48	23.68	39.90	34.50	45.40	20.64	7.92	8.76	3.21	233.97	159.50	118.58	51.66	541.66
27	Henry H. Rogers.....	32.88	22.80	38.78	34.80	49.76	22.24	9.24	8.79	2.46	216.83	163.91	109.44	46.81	536.99
28	George W. Denfeld.....	32.88	24.00	45.08	35.64	47.20	24.00	7.92	8.10	2.46	222.36	157.16	110.40	46.77	536.69
29	Herbert O. Dunn.....	31.92	22.80	45.36	36.36	46.08	23.12	8.97	8.79	1.48	219.32	159.51	108.87	47.02	534.72
30	Nicholas J. L. T. Halpine.....	36.12	21.68	42.42	35.52	43.20	22.04	8.58	9.18	1.32	211.46	154.71	118.99	46.38	534.54

31	Frank B. Case	37.68	22.96	40.74	33.12	44.84	24.32	8.64	8.34	1.89	219.39	156.46	103.84	48.72	533.41
32	Frank W. Toppan	33.84	23.28	40.74	35.52	48.00	22.88	9.09	8.46	2.70	219.11	157.59	107.76	44.56	530.32
33	Harry M. Donmbaugh	34.44	22.32	42.98	34.92	45.60	21.68	8.43	7.92	4.05	214.24	149.01	103.88	51.53	524.66
34	Frank R. Heath	31.44	21.04	42.42	31.80	46.08	22.08	8.55	8.49	3.30	208.60	158.82	108.83	47.37	523.62
35	Philip V. Langstole	33.72	21.44	43.26	32.76	45.76	20.96	8.07	7.68	3.42	210.23	159.33	103.58	46.78	519.82
36	William S. Benson	32.16	22.48	41.16	34.56	42.64	21.76	8.79	8.34	2.79	208.54	152.71	105.10	50.55	516.90
37	Percival J. Weftell	31.92	20.64	45.36	34.80	43.52	23.20	9.21	8.53	4.17	203.03	150.94	103.10	48.67	515.74
38	William K. Roush	30.00	23.04	43.08	33.00	43.28	22.08	7.86	7.32	4.41	209.85	152.80	104.71	47.38	514.74
39	Horace W. Harrison	31.56	23.92	38.50	32.04	43.20	22.08	8.85	8.55	4.47	204.23	156.56	104.01	49.63	514.43
40	Alfred L. Hall	33.96	21.44	44.10	31.92	43.36	20.64	8.25	7.86	3.57	207.96	152.08	104.60	47.82	512.46
41	William L. Burdick	31.44	20.96	45.64	34.20	41.76	20.32	8.31	8.04	4.71	205.96	154.91	103.68	46.86	511.41
42	Henry A. Johnson	33.36	20.32	42.14	32.40	43.84	19.04	8.43	7.92	4.71	202.80	155.58	104.76	43.80	506.94
43	Simon Cook	33.00	22.88	38.64	31.20	44.32	20.56	7.77	8.22	1.32	205.27	145.55	101.88	46.62	499.32
44	KoroKu Katz	29.01	19.20	38.36	31.68	38.88	14.88	.....	.....	2.55	169.40	121.75	82.53	45.61	419.38
45	Giro. Kunitomo	30.84	18.48	37.66	24.00	37.92	11.68	7.29	.....	1.41	166.46	121.33	83.71	47.38	418.78

CADET-MIDSHIPMEN.

Merit-roll of second class (37 members), annual examination, June, 1877.

Order of annual merit.	Name.	Seamanship.	Naval tactics.	Ordnance instructions.	Infantry tactics.	Astronomy.	Magnetism and electricity.	Mechanics and applied mathematics.	English composition.	French.	Spanish.	Conduct.	Aggregate.
		48.00	8.00	12.00	8.00	24.00	24.00	56.00	20.00	16.00	12.00	.....	228.00
*1	Maxima												
*2	John H. Fillmore	41.64	7.54	10.89	7.54	23.04	23.40	56.98	15.55	12.52	9.87	1.35	207.36
*3	Thomas S. Rodgers	39.60	7.68	10.35	7.68	22.08	21.24	54.18	17.60	13.60	10.83	1.78	204.66
*4	Charles S. McClain	40.68	7.44	11.07	7.44	22.14	20.88	52.50	16.40	12.76	10.08	1.39	199.48
5	John G. Quinby	39.48	6.84	10.38	6.84	22.32	22.92	56.00	14.65	12.52	8.94	1.86	198.97
6	James H. Glennon	37.20	6.26	9.69	6.69	21.36	21.12	49.84	15.50	14.36	9.48	1.39	190.02
7	William L. Rodgers	38.28	7.20	10.50	7.20	21.30	20.22	49.42	17.30	12.48	8.28	1.81	189.17
8	George F. Ormsby	36.60	6.22	10.38	6.22	20.52	19.98	48.16	17.50	12.88	9.96	0.74	187.28
9	Harry S. Knapp	38.04	5.86	10.14	6.70	21.00	18.96	45.08	17.45	13.64	9.45	1.91	184.41
10	Roy C. Smith	35.00	6.52	9.75	7.38	22.14	19.74	43.26	17.30	12.88	8.58	0.69	182.86
11	Frank J. Sprague	36.28	6.66	10.56	6.44	21.66	22.14	46.48	15.70	11.64	8.13	2.25	182.44
12	Albert N. Wood	41.52	6.93	10.59	6.84	19.18	19.44	40.74	14.90	11.00	9.00	0.64	181.55
13	Harry McL. P. Huse	36.30	6.42	10.02	6.40	19.02	20.64	38.92	17.80	15.60	10.71	1.74	180.21
14	John H. L. Holcombe	38.04	6.18	10.68	6.32	19.38	19.74	38.36	15.30	12.92	8.49	0.94	174.77
15	Peyton B. Bibb	38.76	6.32	10.44	6.32	19.38	15.60	35.60	15.50	12.64	8.82	0.74	173.98
16	Charles N. Atwater	36.72	6.36	9.51	6.16	19.32	18.84	36.26	17.75	12.80	8.79	1.07	171.44
17	Edward Lloyd, Jr	35.2	6.00	10.11	6.32	20.70	16.26	38.64	14.90	12.88	8.82	0.69	170.86
18	Richard M. Hughes	33.12	5.86	9.66	6.12	20.46	17.10	39.62	15.95	13.08	10.35	1.86	169.46
19	Robert K. Wright	38.40	5.98	8.94	7.08	20.76	16.50	35.42	16.35	12.20	9.06	1.70	169.19
20	Spencer F. B. Biddle	37.08	5.44	9.90	6.14	19.62	17.10	36.82	15.45	11.24	7.83	2.53	161.09
21	John E. McDonnell	33.24	6.06	10.08	6.30	18.48	16.38	35.00	15.45	11.40	9.54	0.70	160.83
22	Thomas W. Ryan	34.63	5.69	8.70	5.78	18.78	17.04	35.98	15.55	11.80	8.22	2.44	160.17
23	William C. Canfield	35.70	5.72	8.79	5.22	17.52	15.60	33.42	15.00	12.76	8.88	1.18	159.49
24	John E. Craven	32.40	6.28	9.51	6.12	18.36	16.98	38.36	13.65	10.48	7.80	2.37	157.57
25	George Sparhawk	33.96	5.10	8.82	6.90	19.44	15.42	35.00	14.10	11.40	7.80	2.12	155.82
26	Allen G. Rogers	31.80	5.84	9.90	5.74	17.52	16.92	35.56	11.65	10.88	8.04	2.97	154.33
27	John H. Shipley	32.64	5.86	9.33	6.14	17.2	16.14	35.00	14.05	10.88	7.56	1.99	154.03
28	Wilson L. Todd	31.20	6.34	8.79	6.46	19.02	16.32	35.40	14.35	10.44	7.68	2.76	153.56
29	Augustus C. Almy	32.28	6.00	8.70	7.02	16.98	16.26	35.42	13.10	11.60	7.59	2.37	153.38
30	George R. Clark	31.80	5.68	7.71	6.04	18.18	15.00	35.28	16.15	11.24	8.16	2.09	153.15

30	John J. Knapp.....	20.00	5.48	8.70	5.80	18.12	16.20	35.28	14.70	10.20	7.95	1.47	150.56
†	Harry Kimmell.....	29.04	6.20	8.85	6.28	19.80	19.68	40.74	15.00	11.96	9.12	1.87	164.80
†	William P. White.....	34.50	6.18	9.27	6.96	19.20	18.24	39.76	13.05	10.60	7.29	2.27	163.08
†	George H. Stafford.....	33.00	6.50	9.27	6.48	20.22	16.20	34.44	16.60	11.32	7.92	1.36	161.19
†	James H. Hetherington.....	34.08	5.74	9.42	5.94	17.40	15.00	35.00	13.75	10.04	7.26	2.12	153.51
†	Baine C. Dent.....	32.88	5.34	8.34	5.94	17.34	16.08	35.28	13.75	10.32	7.20	2.48	149.99
†	John L. Purcell.....	32.16	5.46	7.32	5.66	16.08	15.00	34.44	13.75	11.80	7.71	1.92	147.46
†	Horatio H. Hooke.....	27.72	4.78	8.64	6.26	18.84	15.84	35.42	13.55	10.32	7.50	2.47	146.40

CADET-MIDSHIPMEN.

Merit-roll of fourth class (84 members), annual examination, June, 1877.

Order of annual merit	Name.	Mathematics.	English and history.	French.	Drawing.	Conduct.	Aggregate.
		36	24	8	8		76
*1	Herman G. Dresel.....	35.91	20.94	7.44	7.46	0.36	71.39
*2	Philip R. Alger.....	36.54	20.58	6.88	7.20	0.93	70.22
*3	John B. Bernadou.....	32.85	20.88	7.26	7.36	0.65	67.70
*4	William H. Wolfersberger.....	33.12	19.98	5.56	6.42	0.30	64.78
5	Luman S. Norton.....	33.39	19.20	5.64	6.78	0.82	64.19
6	James C. Drake.....	34.47	17.52	6.06	6.26	0.86	63.45
7	Patrick W. Hourigan.....	30.78	20.88	5.54	6.24	1.03	62.41
8	Horatio L. Fillebrown.....	31.23	18.12	6.06	7.26	0.42	62.25
9	Albert A. Ackerman.....	30.69	19.44	5.48	6.40	0.18	61.83
10	Edwards F. Leiper.....	28.44	18.54	6.16	6.56	0.08	59.62
11	James B. Murray.....	28.35	19.38	6.36	6.28	1.06	59.31
12	William Truxton.....	28.71	18.12	5.46	7.20	0.48	59.01
13	Frank W. Bowdon.....	27.99	19.08	6.40	5.48	0.38	58.57
14	Stokely Morgan.....	28.80	18.24	5.06	6.52	0.22	58.40
15	Arthur R. Howze.....	29.16	16.74	6.14	6.08	0.39	57.73
16	Augustus N. Mayer.....	28.53	18.06	5.40	6.12	0.56	57.55
17	Thomas A. Parke.....	27.09	18.30	6.90	5.56	0.41	57.44
18	George E. West.....	29.16	17.04	5.52	6.06	0.43	57.35
19	Henry M. Finley.....	28.98	16.80	6.20	6.22	1.16	57.04
20	Theodore G. Dewey.....	26.91	17.34	5.70	7.44	0.46	56.93
21	Porter D. Haskell.....	26.10	18.72	6.40	5.74	0.18	56.78
22	William C. P. Muir.....	26.37	17.82	6.62	6.40	0.72	56.49
23	Joseph H. Rohrbacker.....	26.73	18.78	5.74	5.62	0.39	56.48
24	Manning K. Eyre.....	26.73	18.12	6.66	5.86	1.01	56.36
25	Edward D. Bronner.....	25.11	18.96	5.42	7.10	0.36	56.23
26	William E. Safford.....	25.02	18.06	6.26	6.84	0.34	55.84
27	Harry Phelps.....	29.34	16.08	5.76	5.78	1.14	55.82
28	Edward Simpson, jr.....	26.37	17.82	5.22	5.94	0.24	55.71
29	James Gray.....	26.19	17.76	5.98	6.32	0.88	55.37
30	George L. Dillman.....	28.71	15.54	5.16	6.70	1.04	55.07
31	Con. M. Perkins.....	25.38	17.94	5.40	6.88	0.62	54.98
32	John S. Watters.....	27.18	16.20	5.72	6.42	0.67	54.85
33	Francis R. Wall.....	26.37	18.06	5.48	5.30	0.48	54.73
34	Fitz-Aubert Huntoon.....	27.00	17.04	5.36	6.22	0.98	54.64
35	Albert P. Niblack.....	24.21	18.96	5.60	6.12	0.40	54.49
36	Joseph M. Dickson.....	25.29	18.96	5.28	5.20	0.27	54.46
37	Louis Duncan.....	26.82	16.80	5.04	6.04	0.45	54.25
38	Charles Cabaniss.....	24.48	18.18	6.04	5.22	0.14	53.78
39	William H. Emerson.....	24.57	17.76	5.20	6.26	0.28	53.51
40	Howard H. Bullitt.....	25.92	17.10	5.22	5.66	0.40	53.50
41	John B. Bailey.....	24.93	17.34	5.96	5.34	0.53	53.04
42	James S. Brown.....	26.46	15.90	5.54	5.66	1.04	52.52
42	Alexander R. Hasson.....	24.75	16.38	5.88	6.22	1.22	52.41
44	Hugh Rodman.....	24.57	16.80	5.08	6.40	0.99	51.86
45	Paul B. Cooke.....	24.84	16.02	5.30	6.14	0.87	51.43
46	Louis S. Van Duzer.....	22.50	16.92	5.00	6.46	0.31	50.57
47	Henry B. Ashmore.....	22.77	16.62	6.04	5.82	1.12	50.13
48	Francis J. Haeseler.....	23.40	15.66	5.10	6.90	1.00	50.06
49	Leontidas Levisee.....	23.13	15.84	5.36	6.16	0.43	50.06
50	Edward Brinley.....	22.50	15.90	5.56	5.40	0.62	48.74
†	Henry C. Haines.....	25.92	17.64	4.90	7.24	0.79	54.91
†	Richard H. Scott.....	26.55	16.98	4.78	6.08	0.46	53.93
†	Frederick R. Brainard.....	26.19	15.48	4.98	6.90	0.24	53.31
†	Washington Irving.....	22.77	17.70	6.48	5.54	0.84	51.65
†	Francis L. Berkeley.....	22.14	16.08	6.24	6.54	0.56	50.44
†	Charles H. Hill.....	26.37	16.50	5.02	5.38	2.84	50.43
†	John C. Biddle.....	24.21	15.84	5.00	5.20	0.13	50.12
†	William A. Gresham.....	22.95	15.54	5.04	6.82	0.34	50.01
†	Walter G. Richardson.....	21.96	17.82	4.94	5.80	0.62	49.90
§	Thomas L. Bonfils.....	24.03	16.26	5.16	5.20	1.12	49.53
†	Alexander S. McCrea.....	20.70	16.86	6.08	6.44	0.88	49.20
†	Thomas Worthington.....	23.58	15.78	4.72	5.80	0.72	49.16
†	William S. Sims.....	22.05	15.54	4.96	7.22	0.78	48.99
†	Edwin W. Nash.....	22.86	16.32	4.80	5.68	1.03	48.63
†	Felton Parker.....	22.23	14.10	6.56	6.58	0.86	48.61
†	George E. Perry.....	23.04	16.08	5.48	4.88	1.04	48.44
†	Zebulon B. Vance.....	22.50	15.90	4.94	5.68	1.12	47.90
†	Macdonough Craven.....	22.23	14.64	4.66	6.60	0.64	47.49
†	Samuel Bryan.....	21.51	15.48	5.50	5.54	0.57	47.46

CADET-MIDSHIPMEN.

Merit-roll of fourth class (84 members), annual examination, June, 1877—Continued.

Order of annual merit.	Name.	Mathematics.	English and history.	French.	Drawing.	Conduct.	Aggregate.
	Maxima	36	24	8	8		76
5	John A. Perry	23.13	14.82	5.46	5.06	1.15	47.32
4	Wesley E. Best	22.95	13.62	5.06	6.30	0.90	47.03
3	Houston Eldredge	20.61	16.08	5.04	5.60	0.46	46.87
2	William F. Babcock	20.70	15.06	4.94	5.76	0.22	46.24
1	Louis J. Clark	23.85	12.36	4.98	5.70	1.02	45.87
	Emile A. von Starkloff	18.81	14.52	7.14	6.08	1.61	44.94
	Max A. Orlopp	20.88	13.74	4.70	5.34	1.12	43.54
	John P. Porter	17.01	15.06	5.20	5.70	0.65	42.32
	Edgar B. W. Haymond	20.70	12.54	5.43	4.92	1.58	42.06
	Donnell Gilliam	17.91	14.76	4.92	4.38	1.34	40.63
	John T. Wallace	18.18	11.88	4.34	5.46	0.56	39.30
	Richard Jones	16.74	11.70	5.04	5.04	1.17	37.35
	Herbert Bliss	18.18		<i>a</i>	6.70	1.56	
	Edward C. Thompson	9.36	<i>a</i>	4.60	2.98	0.75	
	Thomas B. Franklin						

CADET-MIDSHIPMEN.

Deficient sections of fourth class (34) members.

The following Cadets, having been turned back at the semi-annual examination, have no relative position with the members of the fourth class:

‡ Andrews, H. B.	‡ Garland, J. S.	‡ Rodgers, G. G.
‡ Bellinger, O. H.	‡ George, C. P.	‡ Taylor, John, jr.
‡ Blow, G. P.	‡ Hains, R. P.	‡ Thatcher, H. W.
‡ Cooke, A. S.	‡ Lindsey, J. H.	‡ Whitfield, J. G.
‡ Conness, D. C. B.	‡ Mahoney, J. E.	‡ Whitwell, S. E.
‡ Craig, B. H.	‡ Matthews, T. H.	‡ Will, J. F.
‡ Dent, Sydney H.	‡ Miner, J. R.	‡ Williamson, B. H.
‡ Deal, E. P.	‡ Parsons, A. C.	‡ Williamson, S. H.
‡ Doyen, C. A.	‡ Patterson, S. A. W.	‡ Wilson, H. B.
‡ Emmet, W. L.	‡ Reamer, M. M.	‡ Wood, J. E.
‡ Forshew, R. P.	‡ Robinson, W. M.	‡ Wright, S. H.
‡ Foster, E. W.		

CADET-ENGINEERS.

Merit-roll of second class (16 members), annual examination, June, 1877.

Order of annual merit.	Name.	Steam-engineering.	Astronomy.	Magnetism and electricity.	Applied mathematics and mechanics.	Composition.	French.	Spanish.	Conduct.	Aggregate.
	Maxima	76	24	24	56	20	16	12		228
*1	Ira N. Hollis	69.16	22.08	23.04	58.10	15.45	13.24	10.17	1.30	209.94
*2	Franklin J. Schell	64.60	23.04	23.22	56.84	16.70	13.76	9.99	0.81	207.34
*3	Henry W. Spangler	65.74	22.08	22.56	58.24	15.20	12.32	9.24	1.57	203.81
4	Goold H. Bull	61.75	20.88	19.56	51.66	15.55	13.00	9.45	1.55	190.30
5	George W. McElroy	60.99	20.40	15.90	52.50	14.55	10.84	7.56	2.57	180.17
6	Robert S. Griffin	59.66	20.52	16.32	43.82	15.20	13.05	10.20	1.01	177.79
7	Mortimer E. Cooley	64.03	20.88	17.76	37.38	15.30	10.63	7.86	1.35	172.54
8	Frederic C. Bieg	57.00	19.14	16.02	37.10	16.80	13.80	9.33	1.30	167.89
9	Frank W. Bartlett	60.04	18.54	16.74	35.70	15.20	12.84	8.49	2.12	165.43
10	Joseph R. Wilmer	55.67	17.76	15.54	35.42	15.85	12.64	9.30	1.46	160.72
11	George E. Burd	55.86	18.36	16.62	36.26	15.20	11.48	7.86	1.38	160.26
12	Howard Gage	54.72	20.52	15.90	36.12	14.85	11.21	8.10	1.82	159.63
13	John L. Gow	55.10	19.86	15.66	35.98	14.60	10.72	7.74	1.82	157.81
14	Charles L. Wight	55.29	17.40	15.30	35.70	15.05	10.12	7.83	1.81	154.88
†	Henry K. Ivers	53.01	16.62	15.00	33.18	15.55	10.32	8.28	1.43	150.53
†	Horace G. Dungan	50.92	16.98	13.74	30.80	12.70	10.64	7.77	2.00	141.55

CADET-ENGINEERS.

Merit-roll of third class (27 members), annual examination, June, 1877.

Order of annual merit.	Name.	Mathematics.	Chemistry.	History, composition, and rhetoric.	French.	Drawing.	Conduct.	Aggregate.
	Maxima	72	32	24	16	8		152
*1	W. M. McFarland	69.30	30.16	20.58	13.52	6.00	0.76	138.20
*2	F. T. Bowles	67.32	29.44	19.80	12.48	7.34	0.64	135.74
*3	Richard Gatewood	67.14	26.64	21.12	14.12	7.02	0.74	135.30
4	C. A. Carr	56.70	28.16	20.04	12.08	5.94	0.78	122.14
5	B. C. Bryan	60.84	25.44	18.24	11.96	6.34	0.90	121.92
6	C. B. Lubbe	58.50	29.04	16.62	10.64	6.34	1.09	120.05
7	M. D. Noell	52.38	29.04	18.60	10.88	5.00	0.03	115.87
8	A. M. Hunt	50.40	27.52	18.30	12.40	6.30	1.08	113.84
9	E. O' C. Acker	46.80	30.48	19.20	10.40	6.88	0.37	113.79
10	J. W. Annan	49.32	24.08	19.38	11.36	6.50	1.49	109.15
11	F. M. Bennett	49.68	22.40	19.80	10.88	6.94	1.27	108.43
12	J. U. Crygier	50.04	23.44	16.44	11.80	6.90	1.20	107.42
13	H. P. Norton	50.04	22.40	16.92	10.44	7.48	0.59	106.69
14	R. T. Isbester	42.60	24.72	17.40	10.36	6.30	1.39	105.99
15	E. H. Scribner	49.86	21.04	15.78	10.72	6.60	0.70	103.30
16	Martin Bevington	45.54	22.56	17.88	10.64	6.60	1.28	101.94
17	F. C. Bowers	47.88	21.60	16.32	11.84	5.58	1.61	101.61
18	H. S. Elseffer	46.98	21.76	16.08	10.92	6.68	1.22	101.20
19	C. G. Talcott	48.60	20.48	15.84	10.68	6.64	1.10	101.14
20	G. R. Salisbury	45.72	20.88	15.36	10.96	6.66	0.59	98.99
21	T. F. Carter	45.90	19.36	16.08	10.16	6.36	0.53	97.33
†	J. H. Baker	46.26	21.12	15.42	9.96	6.14	1.05	97.85
†	T. J. Hogan	41.22	19.76	15.36	10.32	7.54	1.17	93.03
†	D. I. Mercier	39.06	19.12	15.60	11.20	5.94	1.67	89.25
†	F. M. Bartholow	37.98	18.88	16.26	10.32	5.74	0.78	88.40
†	J. H. Yarnall	37.44	15.44	17.32	13.36	5.04	1.22	87.58
†	W. S. Smith	37.80	16.88	13.62	10.12	5.94	1.07	83.29

CADET-ENGINEERS.

Merit-roll of fourth class (27 members), annual examination, June, 1877.

Order of annual merit.	Name.	Mathematics.	English and history.	French.	Drawing.	Conduct.	Aggregate.
	Maxima	36	24	8	8		76
*1	W. F. C. Hasson	36.27	19.08	7.22	6.90	0.40	69.07
*2	A. W. Stahl	33.57	20.64	7.00	7.54	0.64	63.11
3	L. D. Miner	33.03	17.58	5.52	7.14	0.18	63.09
4	W. F. Durand	31.86	17.64	5.74	7.06	0.38	61.92
5	W. S. Sample	30.33	17.16	5.20	6.94	0.30	59.33
6	J. L. Wood	22.08	18.78	7.10	5.74	0.43	59.27
7	A. T. Woods	27.09	16.26	6.26	7.30	0.21	56.70
8	A. E. Smith	26.64	17.94	5.36	6.78	0.46	56.26
9	A. O. Young	26.64	17.40	5.84	6.46	0.49	55.85
10	T. W. Kinkaid	25.83	18.60	5.70	5.86	0.19	55.80
11	W. H. Alderdice	27.00	17.52	5.24	7.08	1.15	55.69
12	C. E. Manning	25.56	17.46	5.98	6.60	0.30	55.30
13	C. A. King	25.47	17.82	5.40	6.04	0.60	54.13
14	J. L. Worthington	24.93	16.44	6.24	5.74	0.33	53.02
15	W. Lang	24.21	17.52	5.82	5.66	0.74	52.47
16	C. A. Miller	25.11	16.38	5.00	5.94	1.21	51.22
17	W. D. Weaver	22.95	17.58	5.74	6.08	1.19	51.16
18	C. E. Belden	24.66	15.18	5.14	5.92	0.37	50.53
19	C. H. Mathews	23.67	15.60	5.16	6.70	0.91	50.22
20	F. M. Lillebridge	23.49	15.00	5.60	6.12	0.65	49.56
†	Harry Hall	23.31	16.92	4.80	5.92	0.31	50.64
+	Solon Arnold	20.79	18.24	5.92	5.58	0.32	50.21
+	Arthur Nichols	22.95	14.40	6.08	6.68	0.44	49.67
+	Herman Eckel	20.34	16.80	6.28	5.32	0.22	48.52
+	J. E. Byrne	23.22	12.90	5.48	7.06	0.58	48.08
+	H. J. Bailey	19.53	13.86	4.26	5.84	0.69	42.80
+	A. W. Temple						

REGULATIONS

GOVERNING

THE ADMISSION OF CANDIDATES INTO THE NAVAL ACADEMY AS CADET-MIDSHIPMEN.

NOMINATION.

I. The number of Cadet-Midshipmen allowed at the Academy is one for every Member and Delegate of the House of Representatives; one for the District of Columbia; and ten appointed annually at large.

II. The nomination of candidates for admission from the District of Columbia and at large is made by the President. The nomination of a candidate from any congressional district or Territory is made on the recommendation of the Member or Delegate from actual residents of his district or Territory.

III. Each year, as soon after the 5th of March as possible, Members and Delegates will be notified in writing of vacancies that may exist in their districts. If such Members or Delegates neglect to recommend candidates by the 1st of July in that year, the Secretary of the Navy is required by law to fill the vacancies existing in districts actually represented in Congress. They will be filled by appointments from the districts in which the vacancies exist.

IV. The nomination of candidates is made annually between the 5th of March and the 1st of July. Candidates who are nominated in time to enable them to reach the Academy on the 21st of June will receive permission to present themselves at that time to the Superintendent of the Naval Academy, for examination as to their qualifications for admission. Those who are nominated prior to July 1, but not in time to attend the June examination, will be examined on the 12th of September following; and should any candidate fail to report, or be found physically or mentally disqualified for admission, in June, the Member or Delegate from whose district he was nominated will be notified to recommend another candidate, who shall be examined on the 12th of September following. When any of the dates assigned for examinations fall on Sunday, the examination will take place on the following Monday.

V. A sound body and healthy constitution, good mental abilities, a natural aptitude for study and habits of application, persistent effort, an obedient and orderly disposition, and correct moral principles and deportment, are so necessary to success in pursuing the course at the Academy, that persons conscious of any deficiency in these respects are earnestly recommended not to subject themselves or their friends to the mortification and disappointment consequent upon failure, by accepting nominations and attempting to enter a service for which they are not fitted.

EXAMINATION.

VI. Each candidate for appointment as Cadet-Midshipman must present to the Academic Board satisfactory testimonials of good moral character, and must certify *on honor* to his precise age, which must be over fourteen and less than eighteen years at the time of the examination. No candidate will be examined whose age does not fall within the prescribed limits.

VII. Candidates must be physically sound, well formed, and of robust constitution; they will be required to pass a satisfactory examination before a medical board con-

posed of one of the medical officers of the Naval Academy, and two other medical officers to be designated by the Secretary of the Navy.

VIII. Any one of the following conditions will be sufficient to cause the rejection of a candidate :

Greatly-retarded development ;

Feeble constitution, inherited or acquired ;

Permanently-impaired general health ;

Decided cachexia, diathesis, or predisposition ;

Chronic disease, or results of injuries sufficient to permanently impair efficiency. such as—

Weak or disordered intellect ;

Epilepsy, or other convulsions within five years ;

Impaired vision, or chronic disease of the organs of vision ;

Great dullness of hearing, or chronic disease of the ears ;

Chronic nasal catarrh,*ozena, polypi, or great enlargement of the tonsils ;

Marked impediment of speech.

Decided indications of liability to pulmonary disease ;

Chronic cardiac affections ;

Hernia, or retention of testes in inguinal cavity ;

Sarcocele, hydrocele, stricture, fistula, or hemorrhoids ;

Large varicose veins of lower limbs, scrotum, or cord ;

Chronic ulcers ; cutaneous and communicable diseases ;

Unnatural curvature of the spine, torticollis, or other deformity ;

Permanent disability of either of the extremities or articulations from any cause.

Attention will also be paid to the stature of the candidate ; and no one *manifestly* under size for his age will be received into the Academy. In case of doubt about the physical condition of the candidate, any marked deviation from the usual standard of height will add materially to the consideration for rejection. Five feet will be the minimum height for the candidate.

The board will exercise a proper discretion in the application of the above conditions to each case, rejecting no candidate who is likely to be efficient in the service, and admitting no one who is likely to prove physically inefficient. No candidate rejected by the board will be allowed a re-examination.

IX. The candidates must pass a satisfactory examination before the Academic Board in reading, writing, spelling, arithmetic, geography, and English grammar.

X. All the examinations, except in reading, will be written. Candidates who fall below the standard will receive a second and final examination in the subjects in which they fail. Deficiency in any one of the subjects at the second examination will be sufficient to insure rejection.

XI. "Candidates rejected at such examinations shall not have the privilege of another examination for admission to the same class unless recommended by the Board of Examiners."—(*Rev. Stat.*, § 1515.)

GENERAL CHARACTER OF THE QUESTIONS.

XII. ARITHMETIC.—*Notation and numeration.*—The candidate is required to express in figures any whole number, decimal, or mixed number ; to write in words any given number ; and to explain the Roman and Arabic systems of notation.

Denominate numbers.—The tables of money, weights, and measures in common use, including English money ; addition, subtraction, multiplication, and division of denominate numbers ; the relation existing between the troy and avoirdupois pound ; number of cubic inches in a gallon ; reduction of differences of longitude to their equivalents in time, and *vice versa*.

Fractions.—The candidate must be familiar with all the processes of common and

decimal fractions, and is expected to be able to give clearly the reasons for such processes, and to be familiar with the contracted methods of multiplication and division given in the ordinary text-books on arithmetic.

Properties of numbers.—Test of divisibility of numbers by 2, 3, 5, 8, 9, 11, 25, 125, &c.; the resolution of composite numbers into prime factors; the method of determining whether any number is prime or composite, and of finding the greatest common divisor and the least common multiple of large as well as small numbers.

Ratio and proportion.—Definitions and explanations of the nature of ratio and proportion; different methods of writing a proportion; solution of problems in simple and compound proportion.

Percentage, interest, and discount.—Examples usually given under these heads in arithmetics.

Mensuration.—The measurement of rectangular surfaces and volumes.

Evolution.—The extraction of square and cube roots.

Analysis.—Miscellaneous problems usually classed under this head, similar to those found in school arithmetics. It is essential that the candidate shall be thoroughly proficient in all branches of arithmetic; unusual excellence in this will be allowed to count in his favor in case of a slight deficiency in other subjects.

Should persons intending to present themselves as candidates acquire a knowledge of algebra, it will be found to be of material assistance in the course of study pursued at the Academy, although not required for admission.

When practicable, should the candidate so prefer, algebraic solutions of problems may be substituted for arithmetical solutions.

GEOGRAPHY.—Candidates will be questioned on the grand divisions of the land and water; the character of coast-lines; the direction and position of mountain-chains and the locality of important peaks; the position and course of rivers, their tributaries, and the bodies of water into which they empty; the position of important seas, bays, gulfs, and arms of the sea; the political divisions of the land, their position, boundaries, and capital cities; the position and direction of great peninsulas, and the situation of important and prominent capes; straits, sounds, channels, and the most important canals; great lakes and inland seas; position and political connection of important islands and colonial possessions; locality of cities of historical, political, or commercial importance (attention is specially called to the rivers and bodies of water on which cities are situated); the course of a vessel in making a voyage between well-known sea-ports.

GRAMMAR.—Candidates will be examined in the whole of English grammar as treated in the common-school text-books, embracing the following subjects: The divisions of letters, and the use of capitals; the parts of speech; the classification of *nouns*, and the distinctions of person, gender, and number; under *number*, the rules for the formation of the plural, nouns irregular and defective in number, the plural of proper names; under *case*, the different uses of the three cases, the rules for inflection, the changes in ending to denote case; the difference between the definite and indefinite *article*, and the use of *a* or *an*; the classification of *adjectives*; the explanation of the different degrees of comparison; the rules for *comparing adjectives*; irregular and defective comparison; numerals and their classification; the double classification of *pronouns*, first, into substantives and adjectives, secondly, into personals, relatives, &c.; peculiarities in the use of personal pronouns, as, the difference between *my* and *mine*, between *thou* and *you*, and the various uses of *it*; compound personal pronouns; the double office of relatives, and the different classes of objects to which each of them is applied; compound relative pronouns; interrogative pronouns; adjective pronouns, or pronominal adjectives, and their classification; the classification and conjugation of *verbs*; the relations between transitive and intransitive verbs; the principal parts of regular, irregular, and defective verbs; the uses and inflection of auxiliaries; the essential peculiarities in the use of voice, mood, tense, number, and person; tense-endings and personal endings; impersonal verbs; the classification, formation, and comparison of

adverbs; conjunctive adverbs; the use of *prepositions, interjections, and conjunctions*, with the classification of the latter.

The rules for the construction and arrangement of words and sentences, given under syntax.

Parsing, according to the following model:

Noun: Class, gender, number, person, case.

Article: Definite or indefinite; qualified noun.

Adjective: Class, compared or not compared; comparison, if admitting it; degree of comparison; qualified noun.

Personal pronoun: Person, gender, number, case.

Relative pronoun: Person, gender, number, case, antecedent.

Interrogative pronoun: Gender, number, case.

Adjective pronoun (or pronominal adjective): Class; qualified word.

Verb: Class, form, principal parts, tense, mood, voice, person, number, subject.

Adverb: Class; derivation and comparison, if derived and compared; qualified word.

Preposition: Words between which the relation is shown by the preposition.

Interjection: The kind of emotion expressed.

Conjunction: Class; words or sentences connected.

The construction of the word will be required in all cases.

READING.—Candidates will be examined in reading aloud English prose, in a standard work; for example, Bancroft's History of the United States.

WRITING AND SPELLING.—Candidates will be required to write an exercise in dictation, and to spell twenty-four words in common use.

An exercise containing eight or more mistakes in spelling will not be considered satisfactory, and will be sufficient of itself to cause the rejection of the candidate.

ADMISSION.

XIII. Candidates who pass the physical and mental examinations will receive appointments as Cadet-Midshipmen, and become inmates of the Academy. Each cadet will be required to sign articles by which he binds himself to serve in the United States Navy eight years (including his time of probation at the Naval Academy), unless sooner discharged. The pay of a Cadet-Midshipman is \$500 a year, commencing at the date of his admission.

XIV. Cadets, immediately after their admission, will supply themselves with the following articles, viz:

One full-dress suit	\$37 72	One hair-mattress	\$3 45
One undress-suit	15 79	One straw-mattress	1 35
One working-suit	2 98	One hair-pillow	1 22
One overcoat	22 80	One pair blankets	4 03
One rubber-coat	5 35	Two bed-spreads	2 36
One full-dress cap	3 95	Six sheets	4 71
One undress-cap	1 65	Four pillow-cases	1 24
* Two pairs high shoes	12 50	* One tooth-brush	25
One pair gymnastic slippers	95	* One hair-brush	80
* Eight white shirts	14 85	* One whisk	27
* Two night-shirts	2 60	* One coarse comb	28
* Four under-shirts	2 52	* One fine comb	30
Twelve linen collars	1 68	One mug	13
* Eight pairs socks	2 00	* One cake soap	10
* Four pairs drawers	2 64	One soap-dish	13
* Six handkerchiefs	1 62	One requisition-book	30
* Eight towels	2 00	One laundry-book	30
Two pairs drill-gloves	1 32	One pass-book	10
Two pairs Lisle-thread gloves	58	One stencil and ink	23
* One pair suspenders	42	* One thread and needle case	53
One neck-tie	42	One rug	1 71
Two clothes-bags	62	One wash-basin and pitcher	1 30

Room-mates will procure for their common use—

One looking-glass (half-cost).....	\$0 66	One broom (half-cost)	\$0 18
One water-pail (half-cost)	49	One table-cover (half-cost)	63
One slop-bucket (half-cost)	49		
Total			169 70

The articles marked *, not being required to conform to a standard pattern, may be brought by the cadet from home; but all other articles must conform to the regulations, and must, therefore, be supplied by the storekeeper.

XV. Each Cadet-Midshipman must, on admission, deposit with the paymaster the sum of \$50, for which he will be credited on the books of that officer, to be expended, by direction of the Superintendent, in the purchase of text-books and other authorized articles, besides those enumerated in the preceding article.

All the deposits for clothing and the entrance-deposit of \$50 must be made before a candidate can be received into the Academy.

SUMMARY OF EXPENSES.

Deposit for clothing	\$169 70
Deposit for books, &c	50 00
Total deposit required.....	219 70

The value of clothing brought from home is to be deducted from this amount.

Each Cadet-Midshipman, *one month after admission*, will be credited with the amount of his actual expenses in traveling from his home to the Academy.

XVI. A Cadet-Midshipman who voluntarily resigns his appointment within a year of the time of his admission to the Academy will be required to refund the amount paid him for traveling-expenses.

R. W. THOMPSON,
Secretary of the Navy.

REGULATIONS

FOR THE

APPOINTMENT OF CADET-ENGINEERS IN THE UNITED STATES NAVY.

I. In pursuance of law, applications will be received by the Navy Department for the appointment of Cadet-Engineers.

II. The application is to be addressed to the Secretary of the Navy, and can be made by the candidate or by any person for him, and his name will be placed on the register. The registry of a name, however, gives no assurance of an appointment, and no preference will be given in the selection to priority of application.

III. The number of appointments which can be made is limited by law to twenty-five each year. The candidate must not be less than sixteen nor more than twenty years of age; he will be required to certify *on honor* to his precise age, to the Academic Board, previous to his examination, and no one will be examined who is over or under the prescribed age. His application must be accompanied by satisfactory evidence of moral character and health, with information regarding date of birth and educational advantages hitherto enjoyed. Candidates who receive permission will present themselves to the Superintendent of the Naval Academy on the 5th of September for examination as to their qualifications for admission.

IV. The course of study will comprise four academic years, with two additional years at sea. All cadets who finally graduate will be commissioned Assistant Engineers in the Navy as vacancies occur. The pay of a Cadet-Engineer is the same as that of a Cadet-Midshipman, \$500 per annum, and at sea the same as Midshipmen.

V. The academic examination previous to appointment will be competitive, and will be on the following subjects, namely: Arithmetic; algebra, through equations of the first degree; plane geometry; rudimentary natural philosophy; reading; writing; spelling; English grammar; English composition; and geography. The candidate will also be required to exhibit a fair degree of proficiency in pencil-sketching, and to produce satisfactory evidence of mechanical aptitude. Candidates who possess the greatest skill and experience in the practical knowledge of machinery, *other qualifications being equal*, shall have precedence for admission.

The other requisites and conditions are the same as those for the admission of Cadet-Midshipmen.

COURSE OF INSTRUCTION.

DEPARTMENT OF SEAMANSHIP,

SEAMANSHIP.*—Description of all kinds of rope, and its practical manipulation for all purposes on shipboard; measuring for and fitting standing and running rigging; masting, sparring, and rigging ship; getting on board and stowing a vessel's outfit; organizing a ship's company; fittings of boats; management of boats under all circumstances; evolutions of vessels at sea and in harbor; repair of spars and rigging in cases of accident; duties of officers at sea and in port; rules of the road; wind and weather.

Text-book.—Luce's Seamanship, with lectures and illustrations from models.

NAVAL CONSTRUCTION.

Text-books.—Thearle's Naval Architecture and Wilson's Ship-Building, with lectures illustrated by models and drawings.

NAVAL TACTICS.*—Organization, formations, and manœuvring of a fleet, under steam or sail.

Text-books.—Manual of Naval Tactics (Ward); Steam Fleet Tactics (Parker); United States Naval Signal-Book; Manual of Signals (Myer).

PRACTICAL EXERCISES, consisting of—

SEAMANSHIP-DRILLS.*—Exercises on shipboard with sails and spars.

NAVAL TACTICS.*—Exercises in boats under oars and under sails.

SIGNALS.—Exercises in the use of signals according to Myer's Army Signal Code.

The instruction in boxing, gymnastics, swimming, and dancing is in charge of this department.

DEPARTMENT OF ORDNANCE AND GUNNERY.

PRACTICE AND THEORY OF GUNNERY.*—*Practical naval gunnery*, as laid down in the Ordnance and Gunnery Instructions for the United States Navy.

Preparation of gun-iron from crude ore, including the description and use of furnaces. Manufacture of wrought-iron, steel, and bronze. Fabrication of guns of all descriptions. Manufacture of gunpowder and fuses, and of all kinds of projectiles and fire-works.

Theory of gunnery.—Motion of projectiles *in vacuo* and in the atmosphere; initial remaining, and final velocities, and the methods of determining their values; the effects of variations of charge, windage, and weight of projectiles; deviation of projectiles; the several systems of pointing; tangent-sights and determination of their values; penetration and shock of projectiles; and recoil of guns.

Text-books.—Cooke's Naval Ordnance and Gunnery; Ordnance Instructions, United States Navy; Gunnery Instructions, United States Navy.

INFANTRY TACTICS.*—Organization and formation of squad, company, and battalion; school of the soldier; company and battalion drill, including instructions for skirmishers and the bayonet exercise.

Text-books.—United States Infantry Tactics; Wingate's Rifle Practice.

PRACTICAL EXERCISES, consisting of—

INFANTRY-DRILL.

FIELD-ARTILLERY AND BOAT-HOWITZER EXERCISE.

GREAT GUNS.—Exercises and target-practice on board the United States ship Santee.

MORTAR-PRACTICE.

FENCING.—Exercise with small-swords and broadswords.

* Cadet-Midshipmen only.

DEPARTMENT OF MATHEMATICS.

ALGEBRA.—Fundamental operations; reduction and conversion of fractional and surd quantities; involution and evolution; reduction and solution of equations of the first and second degrees; the summation of series; the nature, construction, and use of logarithms; the theory of equations.

GEOMETRY.—Plane and solid geometry; the mensuration of surfaces and volumes; the application of Algebra to geometry.

TRIGONOMETRY.—Analytical investigation of trigonometric formulas, and their application to all the cases of plane and spherical trigonometry; the construction and use of trigonometric tables; the solution of trigonometric equations; trigonometric series.

ANALYTICAL GEOMETRY.—Equations of the right line, plane, and conic sections; discussion of the general equation of the second degree involving two or three variables; determination of loci; principal problems relating to the cylinder, cone, sphere, and spheroids.

DESCRIPTIVE GEOMETRY.—The graphic illustration and solution of problems in solid geometry, and the application of the method, particularly to the projections of the sphere and the construction of maps.

Text-books.—Ray's Higher Algebra; Chauvenet's Geometry; Chauvenet's Trigonometry; Church's Descriptive Geometry; Todhunter's Conic Sections; Bowditch's Useful Tables.

ELECTIVE COURSES.

In addition to the above, Cadets of the third and fourth classes who display marked ability in mathematics are permitted to take an advanced course. The following are the elective courses for 1877-78:

Fourth class.—Algebra, the theory of equations, and curve-tracing.

Third class.—The elements of the differential and integral calculus, with applications to trigonometry and geometry of two dimensions.

Text-books.—Todhunter's Algebra for Colleges and schools; Todhunter's Theory of Equations; Rice and Johnson's Elements of the Differential and Integral Calculus.

DEPARTMENT OF STEAM-ENGINEERING.

MARINE ENGINES.—General theory of the steam-engine; classification and details of marine steam-engines, and of instruments and apparatus used in connection with them; the principles followed to insure strength in construction; the computation of the power and its cost; the duties of the engine-room watch, and of the engineer division.

FABRICATION OF MACHINERY.*—The qualities and strength of materials, and the processes of manufacture.

DESIGNING OF MACHINERY.*—The designing and construction of engines and other machinery, and the motions employed in valve-gearing.

MECHANICAL DRAWING.*—The nomenclature of design and construction; general and conventional practices of the art; the execution of plans, elevations, and sections.

PRACTICAL EXERCISES.—The management of marine steam-apparatus; [the use of tools and machines; hand-work of the machine-shop, pattern-shop, smithery, boiler-shop, and foundry.]*

Text-books.—King's Practical Notes on the Steam-Engine; Northcott's Steam-Engine; Warren's Elements of Mechanical Drawing; Willis's Principles of Mechanism; Rankine's Steam-Engine and other Prime Movers; Zeuner's Valve-Motion.

* Cadet-Engineers only.

DEPARTMENT OF ASTRONOMY, NAVIGATION, AND SURVEYING.

ASTRONOMY.—Descriptive and practical astronomy, including the use of instruments, especially those used for determining terre-trial latitudes and longitudes.

Text-book.—C. J. White's Astronomy; Theory of Portable Transit and Zenith Telescope.

NAVIGATION.*—Theory and practice of navigation, the latter including instruction in the duties of the navigator, the use of navigating-instruments, and their construction, with the solution of problems and the use of tables.

Text-books.—Coffin's Navigation; Merrifield's Deviation of the Compass; Bowditch's Navigator.

SURVEYING.*—The form of the earth, with special reference to the construction of charts; explanation of geodetical surveys; the solution of problems in nautical surveying; and practical work in surveying and constructing charts.

Text-book.—Howell's Marine Surveying.

DEPARTMENT OF PHYSICS AND CHEMISTRY.

ACOUSTICS.—Theory of waves; the production and propagation of sound; the numerical evaluation of sound; modes of vibration; communication of vibrations; analysis of vibrations.

OPTICS.—The propagation, reflection, and refraction of light; lenses, vision, and optical instruments; spectrum-analysis; color; the undulatory theory of light; polarization and double refraction.

ELECTRICITY AND MAGNETISM.—Magnetism; statical electricity; Voltaic electricity; electro-magnetism; electrical measurements; applications of electricity; thermo-electricity.

CHEMISTRY.—General chemistry.

METEOROLOGY AND CLIMATOLOGY.

EXPERIMENTAL LECTURES IN PHYSICS AND CHEMISTRY.

HEAT.—Theories of heat; sources of heat; conduction, radiation, and convection; specific heat; effects of heat; instruments used for the measurement of heat; thermodynamics.

Text-books.—Stewart's Elementary Physics; Eliot and Storer's Chemical Analysis; Jenkin's Magnetism and Electricity; Stewart's Elementary Treatise on Heat; Miller's Inorganic Chemistry.

Reference-books.—Ganot's Physics; Maxwell's Theory of Heat.

DEPARTMENT OF MECHANICS AND APPLIED MATHEMATICS.

THE DIFFERENTIAL AND INTEGRAL CALCULUS.—The principles of the differential calculus, including Taylor's theorem, applications to problems of maxima and minima, and the tracing of curves; the methods of integration, and the application of the integral calculus to areas, surfaces, and volumes, and to the finding of centres of gravity and moments of inertia, and to the simpler cases of differential equations.

MECHANICS.—*Statics*, including the theory of friction, adhesion, and stiffness of cordage. *Dynamics*, including the motion of projectiles in a non-resisting medium and in air; motions of translation and of rotation of bodies about an axis; falling bodies; central forces; the simple and the compound pendulum; the laws of planetary motion; work, and conservation of energy.

HYDROSTATICS.—Mechanical properties of fluids; the laws of equilibrium and pressure; the flotation of bodies; the stability and oscillations of floating bodies; specific gravity; the motion of liquids. *Aëriform fluids.*—Laws of pressure; weight and pressure of the atmosphere; density and temperature; the barometer, the siphon, and the pump.

THE STRENGTH AND RESISTANCE OF MATERIALS.†—Strength and flexure of beams; beams of uniform resistance; results obtained by experimenters.

* Cadet-Midshipmen only.

† Cadet-Engineers only.

Text-books.—Rice and Johnson's Differential and Integral Calculus; Todhunter's Mechanics for Beginners; Smith's Hydrostatics; and Rankine's Applied Mechanics.

ELECTIVE COURSE.

Cadets who have completed the elective course in mathematics are permitted to take an advanced course in integral calculus and analytical mechanics.

Text-books.—Williamson's Integral Calculus, and Wood's Analytical Mechanics.

DEPARTMENT OF ENGLISH STUDIES, HISTORY, AND LAW.

LAW.—Constitution of the United States.

International law:—rights and duties of nations in peace and war; rights of interference, of jurisdiction over the sea, of commerce, of passage over land and navigable rivers; duties of ministers, consuls, and naval commanders; kinds of property liable to capture; domicile; privateering; prizes; *jus postliminii*; rights and duties of neutrals; contraband; blockade; right of search; ship's papers; offences against the law of nations.

Outlines of maritime law.

Lectures.

Text-books.—Woolsey's International Law; Andrews's Manual of the Constitution.

HISTORY.—Origin and ethnological grouping of Aryan, Semitic, and Turanian nations; outlines of history, especially the history of Greece and Rome, of the Holy Roman Empire, and of the states of Western Europe down to 1875; historical geography; progress of colonial development in America; history of the United States; naval history; lectures.

Text-books.—Freeman's General Sketch of History, with Labberton's Historical Atlas; Eliot's History of the United States, with modern atlases.

RHETORIC AND COMPOSITION.—Essential properties of style; classification of sentences; rules for the construction of sentences; figures of rhetoric; exercises in the composition of themes and official reports.

Text-book.—Bain's Rhetoric.

ENGLISH.—Historical development of the English language; relation of English to the other Aryan languages; changes wrought by foreign influence on the grammar, vocabulary, and pronunciation. Etymology. Syntax; analysis of sentences.—Readings from standard authors, with applications of the principles of grammar, and exercises in analysis and in tracing the etymological meaning of words.—Classification of words; definition of words by usage and by derivation; synonyms; laws of change in the meaning of words by contraction, extension, and amelioration.—Faults in diction, and their remedies; selection and arrangement; elementary principles of reasoning.

Text-books.—Tancock's English Grammar and Reading Book; Seeley and Abbott's English Lessons; Hart's Manual of Punctuation.

DEPARTMENT OF MODERN LANGUAGES.

FRENCH AND SPANISH LANGUAGES.—Grammar; exercises in reading, writing, and conversation.

Text-books.—Keetel's French Grammar; Howard's Aid to French Composition; Prud'homme's French Nautical Phrases; Erekman-Chatrion's Le Conscri; Gasc's Dictionary; Roget's Spanish Manual; Tolon's Reader; Barretti's Dictionary.

DEPARTMENT OF DRAWING.

Right-line drawing; free-hand drawing and perspective; topographical and chart drawing.

The foregoing studies are distributed over four years, and the Cadets are arranged in four classes, each class pursuing the course for the year.

PROGRAMME OF RECITATIONS FOR THE FIRST TERM.

From September 20, 1877, to February 2, 1878.

The time devoted to daily recitations is divided into three periods, indicated thus:—(1), (2), (3). (1) denotes first period, from 8.30 a. m. to 10.30 a. m.; (2) denotes second period, from 10.45 a. m. to 12.45 p. m.; and (3) denotes third period, from 2 p. m. to 4 p. m.

Practical exercises begin on Saturday at 10.45 a. m., and on all other days, except Sundays, at 4 p. m.

CADET-MIDSHIPMEN.

Department.	Periods.	Subjects.
FOURTH CLASS—FIRST YEAR.		
Mathematics.....	M. T. W. Th. F. (2) S. (1)	Algebra and Geometry. Elective Course once a week.
English Studies, History, and Law	M. T. W. Th. F. (1)	English and History.
Modern Languages	1st division, M. T. Th. (3)..... } 2d division, M. W. F. (3)..... }	French.
Drawing	1st division, W. F. (3)..... } 2d division, T. Th. (3)..... }	Line-drawing.
THIRD CLASS—SECOND YEAR.		
Mathematics	M. T. W. Th. F. (1)	Trigonometry and Descriptive Geom-try.
	F. (3)	Descriptive Geometry. Elective Course once a week.
English Studies, History, and Law	M. F. (2) W. (3).....	History and Rhetoric.
Physics and Chemistry	T. W. Th. (2).....	Elementary Physics.
Modern Languages	T. Th. (3).....	French.
Drawing.....	M. (3) S. (1)	Sketching.
SECOND CLASS—THIRD YEAR.		
Seamanship	M. (3) F. (2) S. (1)	Lnce's Seamanship.
Ordnance and Gunnery	Th. (3)	Infantry Tactics.
Astronomy, Navigation, and Sur- veying	T. (3) W. Th. (2).....	Astronomy.
Mechanics and Applied Mathe- matics	M. T. W. Th. F. (1)	Calculus. Elective Course twice a week.
English Studies, History, and Law	One period a month	Composition.
Modern Languages	M. T. (2) W. F. (3).....	French.
FIRST CLASS—FOURTH YEAR.		
Seamanship	T. Th. F. (3)	Naval Construction.
Ordnance and Gunnery	T. (2) W. (3).....	Ordnance and Armor.
Steam-Engineering	W. Th. (2) F. (1)	Marine Engines.
Astronomy, Navigation, and Sur- veying	M. T. W. Th. (1)	Navigation.
Physics and Chemistry	M. F. (2) S. (1)	Heat and Light.
Modern Languages	M. (3)	Spanish.

CADET-ENGINEERS.

Department.	Periods.	Subjects.
FOURTH CLASS—FIRST YEAR.		
Mathematics.....	M. T. W. Th. F. (2) S. (1).....	Algebra and Geometry. Elective Course once a week.
Steam-Engineering	1st division, W. F. (3)	Mechanical Drawing.
	2d division, T. Th. (3)	
English Studies, History, and Law	M. T. W. Th. F. (1)	English and History.
Modern Languages	1st division, M. T. Th. (3)..... } 2d division, M. W. F. (3)..... }	French.

CADET-ENGINEERS—Continued.

Department.	Periods.	Subjects.
THIRD CLASS—SECOND YEAR.		
Mathematics.....	M. T. W. Th. F. (1)	Trigonometry and Descriptive Geometry. Descriptive Geometry. Elective Course once a week.
	F. (3) .....		Mechanical Drawing. Elementary Physics. History and Rhetoric. French.
Steam-Engineering	M. (3) S. (1)	Mechanical Drawing, Marine Engines, and Fabrication of Machinery.
Physics and Chemistry	T. W. Th. (2)	
English Studies, History, and Law	M. F. (2) W. (3)	
Modern Languages	T. Th. (3)	
SECOND CLASS—THIRD YEAR.		
Steam-Engineering	M. Th. (3) F. (2) S. (1)	Astronomy.
Astronomy, Navigation, and Sur- veying	T. (3) W. Th. (2)	
Mechanics and Applied Mathe- matics	M. T. W. Th. F. (1)	Calculus. Elective Course twice a week. Composition. French.
English Studies, History, and Law	One period a month*	
Modern Languages	M. T. (2) W. F. (3)	
FIRST CLASS—FOURTH YEAR.		
Seamanship.....	T. Th. F. (3)	Naval Construction. Marine Engines, Fabrication and Designing of Machinery, Mechanical Drawing, Heat and Light.
Steam-Engineering	M. T. W. Th. F. (1) W. (3)	
Physics and Chemistry	M. F. (2) S. (1)	Strength of Materials. Spanish.
Mechanics and Applied Mathe- matics	T. W. Th. (2)	
Modern Languages	M. (3)	

* Theme Periods.—1. Sept. 22, S. (1), { C. M. Seamanship, } 2. Oct. 29, M. (1), Mechanics. 3. Nov.
26. M. (2), Modern Languages. 4. Dec. 26, W. (2), Navigation. { C. E. Steam. }

PROGRAMME OF RECITATIONS FOR THE SECOND TERM.

From February 2, 1878, to June 20, 1878.

CADET-MIDSHIPMEN.

Department.	Periods.	Subjects.
FOURTH CLASS—FIRST YEAR.		
Mathematics	M. T. W. Th. F. (2) S. (1)	Algebra and Geometry. Elective Course once a week. English and History.
English Studies, History, and Law	M. T. W. Th. F. (1)	
Modern Languages	1st division, M. T. Th. (3)	French.
	2d division, M. W. F. (3)	
Drawing.....	1st division, W. F. (3)	Topography.
	2d division, T. Th. (3)	
THIRD CLASS—SECOND YEAR.		
Mathematics.....	M. T. W. Th. F. (1)	Analytical Geometry and De- scriptive Geometry. Elective Course once a week. Descriptive Geometry. Chemistry. History and Rhetoric. French.
	M. (3)	
Physics and Chemistry	T. Th. F. (2)	
English Studies, History, and Law	M. W. (2) S. (1)	
Modern Languages	T. W. Th. F. (3)	
SECOND CLASS—THIRD YEAR.		
Seamanship.....	T. Th. (3) F. (2)	Luce's Seamanship. Naval Tactics. Ordnance Instructions. Physics.
	Th. (2)	
Ordnance and Gunnery	T. (2)	
Physics and Chemistry	M. W. (2) S. (1)	
Mechanics and Applied Mathe- matics	M. T. W. Th. F. (1)	Mechanics. Elective Course twice a week. Composition. Spanish.
English Studies, History, and Law	One period a month	
Modern Languages	M. W. F. (3)	

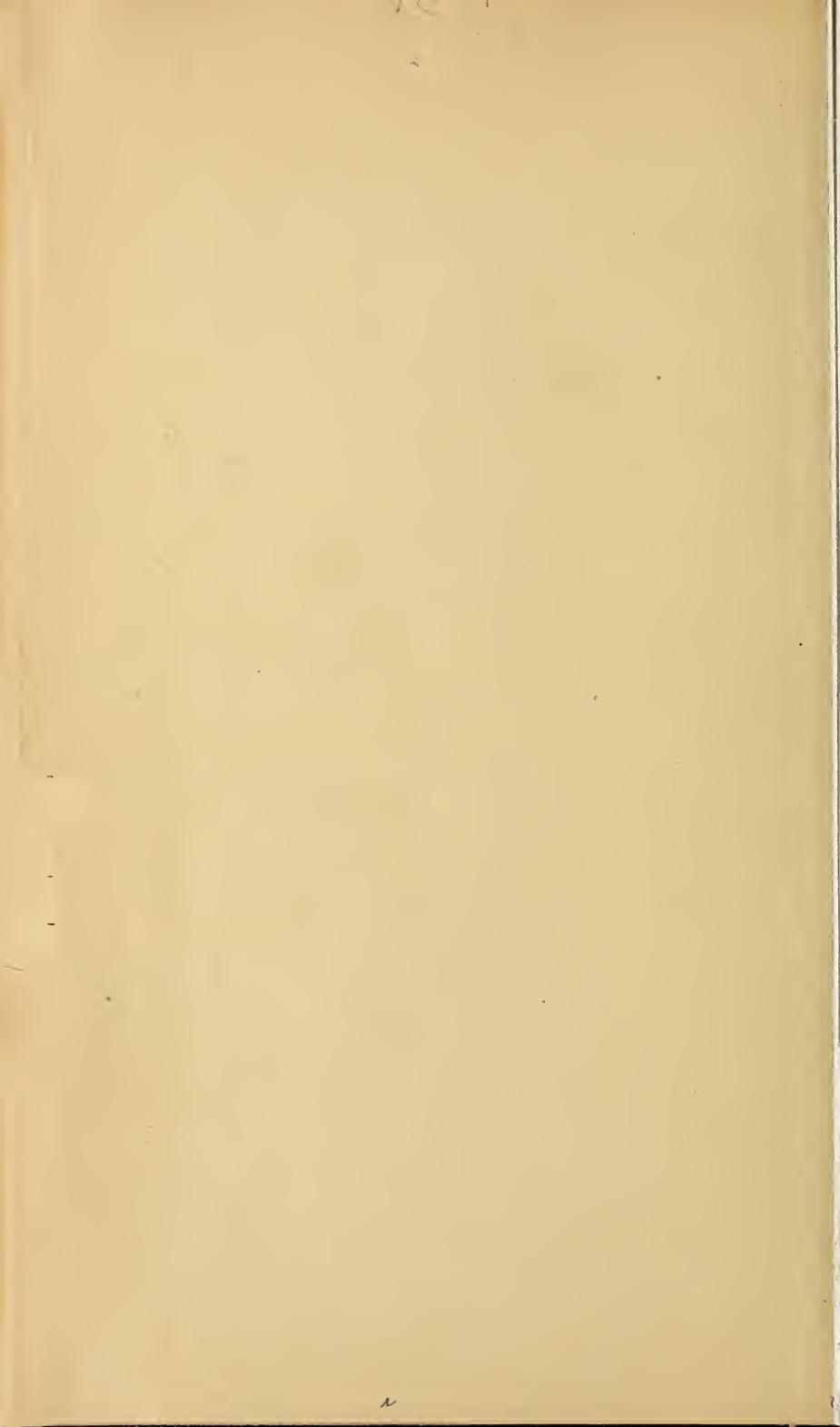
CADET-MIDSHIPMEN—Continued.

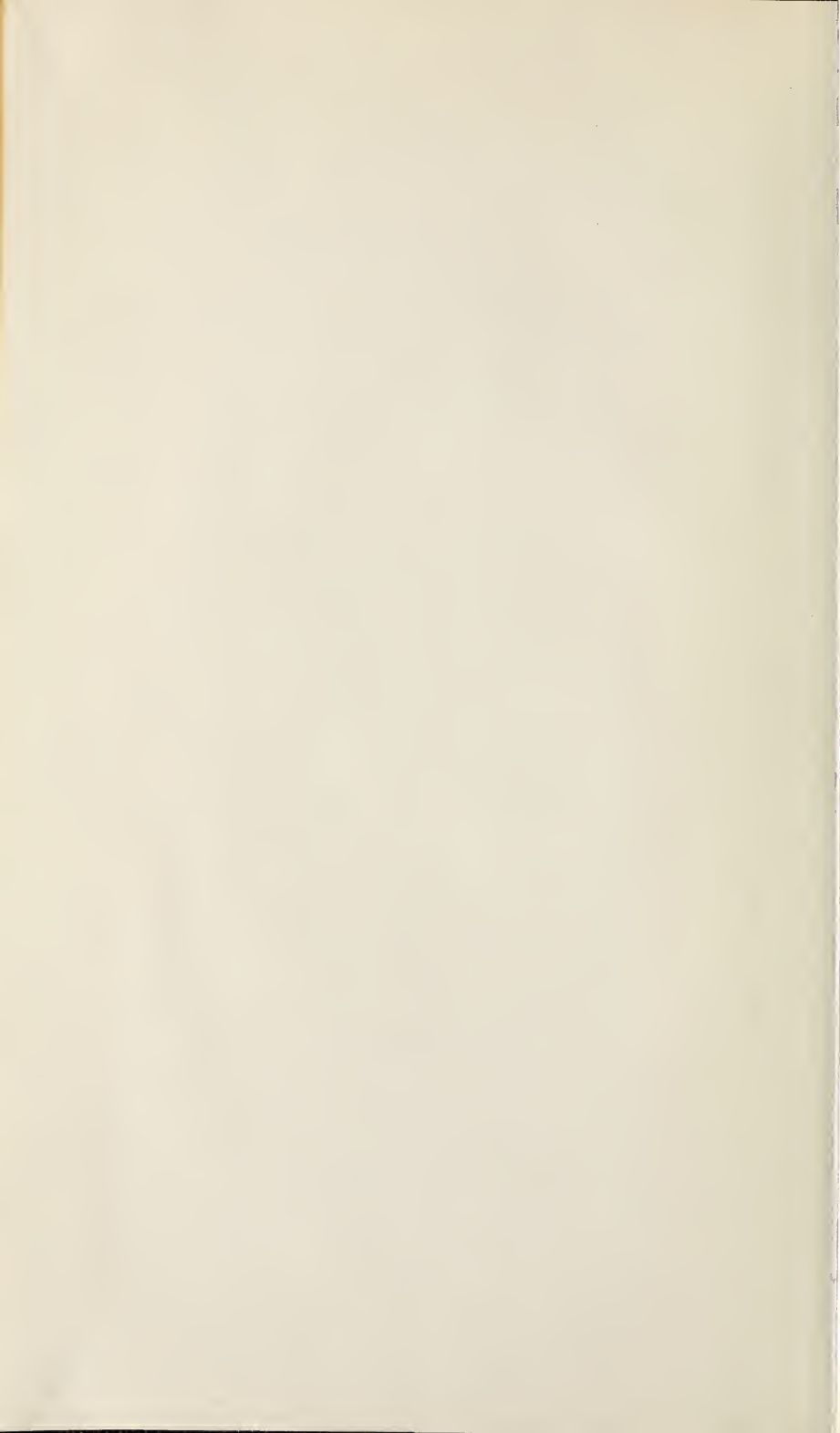
Department.	Periods.	Subjects.
FIRST CLASS—FOURTH YEAR.		
Seamanship	M. W. (2) S. (1)	Luce's Seamanship.
Ordnance and Gunnery	M. Th. (3) T. (1)	Ordnance and Armor.
Steam-Engineering	W. F. (3) Th. (2)	Marine Engines.
Astronomy, Navigation, and Surveying	M. W. Th. F. (1)	Navigation and Surveying.
English Studies, History, and Law	T. F. (2)	Public Law.
Modern Languages	T. (3)	Spanish.

CADET-ENGINEERS.

Department.	Periods.	Subjects.
FOURTH CLASS—FIRST YEAR.		
Mathematics	M. T. W. Th. F. (2) S. (1)	Algebra and Geometry. Elective Course once a week.
Steam-Engineering	1st division, W. F. (3)	Mechanical Drawing.
English Studies, History, and Law	2d division, T. Th. (3)	
Modern Languages	M. T. W. Th. F. (1)	English and History.
	1st division, M. T. Th. (3)	French.
	2d division, M. W. F. (3)	
THIRD CLASS—SECOND YEAR.		
Mathematics	M. T. W. Th. F. (1)	Analytical Geometry and Descriptive Geometry. Elective Course once a week.
Physics and Chemistry	M. 3	Descriptive Geometry.
English Studies, History, and Law	T. Th. F. (2)	Chemistry.
Modern Languages	M. W. (2) S. (1)	History and Rhetoric.
	T. W. Th. F. (3)	French.
SECOND CLASS—THIRD YEAR.		
Steam-Engineering	T. Th. F. (2) T. Th. (3)	Mechanical Drawing, Fabrication of Machinery, and Marine Engines.
Physics and Chemistry	M. W. (2) S. (1)	Electricity.
Mechanics and Applied Mathematics	M. T. W. Th. F. (1)	Mechanics.
English Studies, History, and Law	One period a month †	Elective Course twice a week
Modern Languages	M. W. F. (3)	Composition. Spanish.
FIRST CLASS—FOURTH YEAR.		
Steam-Engineering	M. W. Th. F. S. (1) W. Th. (2)	Marine Engines, Fabrication and Designing of Machinery, and Mechanical Drawing.
Physics and Chemistry	T. (1) M. W. (3)	Physical Measurements.
Mechanics and Applied Mathematics	M. (2)	Strength of Materials.
English Studies, History, and Law	T. F. (2)	Public Law.
Modern Languages	T. 3	Spanish.

† Theme Periods.—1. Feb. 8, F. (2), { C. M. Seamanship, } 2. Mar. 11, M. (1), Mechanics. 3. Apr. 10, W.
{ C. E. Steam. }
(3). Modern Languages. 4. May 15, M. (2), Physics.





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